A REMARKABLE MILITARY FEAT

The Hungnam Redeployment, December 1950

Donald Chisholm

The difficulty . . . to be got over is to know how not only to invade with success; but likewise to retreat with safety.

THOMAS MORE MOLYNEUX

I kept the sea always on my flank; the transports attended the movements of the army as a magazine; and I had at all times, and every day, a short and easy communication with them. The army, therefore, could never be distressed for provisions or stores, however limited its means of land transport; and in case of necessity it might have embarked at any point of the coast.

SIR ARTHUR WELLESLEY

Amphibious operations exploit the great facility and inherent flexibility of movement and maneuver that the sea affords in order to concentrate military power at the decisive time and place ashore.[1] Such operations are founded on sea control, regularly capitalize on surprise and enemy weakness, and are usually carried out in support of broader operational and campaign objectives ashore—severing enemy land lines of communication, establishing lodgments for follow-on forces, establishing control of choke points or denying the enemy use of decisive physical points, outflanking less mobile enemy land forces, and the like.

We are wont to identify amphibious *operations* with amphibious *assaults,* especially those executed during World War II, when the assault was refined to a high art. In truth, however, militaries have for many centuries found it useful to conduct an olio of amphibious operations during peace as well as war. Appropriately, therefore, in addition to the assault, U.S. joint doctrine identifies four other categories of amphibious operation: raids, demonstrations, withdrawals, and those in support of other kinds of operations with objectives

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of conflict prevention or crisis mitigation (e.g., disaster relief and noncombatant evacuations).[2] The last type has constituted the majority of amphibious operations conducted since World War II. Still, the amphibious assault, as such, remains most vivid in the mind's eye. Notwithstanding Omar Bradley's 1949 declaration that atomic weapons had rendered the large-scale amphibious assault anachronistic, events of the ensuing decades—famously, Inchon, less than a year later—suggest that the practical utility of the amphibious operation neither has dimmed nor is likely to do so in the foreseeable future.[3] Its successful execution still poses the greatest risk to potential and actual enemies, as Argentina learned through hard experience in 1982, Saddam Hussein recognized during Operation DESERT STORM, and Task Force (TF) 58 demonstrated to the Taliban in Afghanistan in November 2001. And now the U.S. Navy and Marine Corps are returning their attention to the amphibious assault, after ten years in the desert.[4]

The present discussion, however, contemplates the amphibious *withdrawal,* those "operations conducted to extract forces by sea in ships or craft from a hostile or potentially hostile shore."[5] The capability to plan and execute amphibious withdrawals, no less than their more glamorous and practiced assault siblings, remains a practical essential in the military repertoire. Forces successfully withdrawn and redeployed will live to fight again another day, and the enemy must honor and plan against such a capability. If the amphibious assault against a hostile shore is among the most complex, technologically and organizationally, of all military undertakings, the amphibious withdrawal does the assault one better —its execution comes as a "branch," a contingency, against reversal of fortune, thus as reaction rather than proaction.

History records a great many military situations in which the success or failure of amphibious withdrawals of land forces profoundly altered operational and strategic outcomes. Arguably, the inability of Cornwallis in 1781 to extract his troops at Yorktown led to his surrender and success for the American revolutionaries. Certainly Lord Wellington thoroughly understood the power this capability afforded him during his Peninsular Campaign against Napoleon's forces. The Royal Navy permitted him not only to reinforce by sea at the places and times required by the ground situation but also to withdraw troops under pressure. He did so on several occasions, most importantly in January 1809 at Vigo and Corunna, where nearly thirty thousand British troops were evacuated, thereby saving Britain's only field army, as well as perhaps the government and the war.[6]

A surprising number of major military extractions from the beach, shown in table 1, were executed in the twentieth century.[7] In every event, ground forces facing destruction by superior enemy strength and position were withdrawn by naval forces. All these withdrawals were executed without any doctrinal foundation; some without air or sea superiority; most absent purpose-built amphibious

TABLE 1

Month/Year	Location	Actor(s)	Scale
Dec. 1915–Jan. 1916	Gallipoli, Turkey	Britain	140,000 British, Australian, and New Zealand troops
Dec. 1915–Feb. 1916	Durazzo/San Giovanni, Albania	Serbia, Italy	136,000 troops, 36,350 horses
May 1940	Dunkirk, France	Britain, France	338,000 troops
April 1941	Attica and Peloponnesus, Greece	Britain	43,000 troops
Oct. 1941	Odessa	USSR	86,000 troops, 150,000 civilians
Dec. 1941	Hangö, Finland	USSR	20,000+ troops
Feb. 1943	Guadalcanal	Japan	12,000+ troops
Aug. 1943	Sicily, Italy	Germany, Italy	39,660 German and 62,000 Italian troops
Aug. 1943	Sardinia, Italy	Germany	25,000 troops, 2,300 vehicles, 5,000 tons
Aug. 1943	Kolombangara, Solomon Islands	Japan	9,000 troops
Sept.–Oct. 1943	Sea of Azov, USSR	Germany, Romania	200,000 troops, 16,000 wounded, 27,000 civilians, equipment
Sept.–Oct. 1943	Corsica, France	Germany	6,250 troops, 1,200 POWs, 3,000+ vehicles, 5,000 tons
March 1944	Odessa, USSR	Germany	24,300 troops and civilians, 54,000 tons
May 1944	Crimea, USSR	Germany	130,000 German and Romanian troops
March 1945	Courland, Latvia	Germany	2.2 million troops and civilians
Dec. 1950	Wonsan, Korea	United States	3,800 troops, 1,146 vehicles, 10,000 tons, 4,800 civilians
Dec. 1950	Chinnampo, Korea	United States	1,800 U.S. troops, 5,900 ROK troops, 3,000 refugees
Dec. 1950	Hungnam, Korea	United States	105,000 U.S. and ROK troops, 91,000 civilians, 17,500 vehicles, 350,000 tons[a]
Dec. 1950–Jan. 1951	Inchon, Korea	United States	4,963 UN troops, 63,220 ROK troops, 64,200 civilians, 1,404 vehicles, 62,144 tons

a. U.S. Marine and Air Force transport aircraft lifted an additional 3,600 troops, 196 vehicles, and 1,300 tons of cargo from Yongpo Airfield adjacent to Hungnam.

shipping; some over very short distances, some over long; some by commanders and staffs inexperienced in amphibious techniques; and others were poorly planned, if at all. In some, the withdrawing force suffered significant casualties in the process; in most, the bulk of heavy equipment was left behind. In every one, however, the amphibious withdrawal permitted the commander to retrieve forces

otherwise doomed to destruction or captivity and subsequently to reinsert them into combat. For this alone, the amphibious withdrawal demands our attention.

Dunkirk and Hungnam represent the antipodes of the twentieth-century amphibious withdrawal. Dunkirk in May 1940 amounted to a hurried *evacuation,* executed under great pressure from the Luftwaffe, by a hasty assemblage of British and French naval vessels, augmented by myriad civilian ships and small craft. The British Expeditionary Force left behind most of its heavy equipment and arms, as well as about forty thousand British soldiers (along with many more French). However, the nearly 350,000 troops successfully returned to England, when recovered, rearmed, and reequipped, once again confronted the Germans in North Africa and Europe.

Conversely, Hungnam constituted a planned, carefully staged massive *redeployment* of forces against enemy pressure. Most of General Douglas MacArthur's X Corps ground troops—the 1st Marine Division (Reinforced) and the battered 7th Infantry Division—arrived at and staged off the beach at Hungnam as organized fighting units. In addition, X Corps's 3rd Infantry Division moved by road and amphibious lift from Wonsan to Hungnam before being redeployed south. All these units brought out their fighting equipment and supplies. The Marines brought their wounded (many others had already been evacuated by air) and virtually all of their dead down the gauntlet from the Chosen Reservoir. The Navy immediately treated the wounded and provided the troops with showers and warm food on board ship.[8] The Navy also lifted the Republic of Korea (ROK) I Corps from Songjin to Hungnam, where it was reembarked and lifted to Bokuko Ko. When the U.S. Navy closed out Hungnam on 24 December 1950, it destroyed all facilities, leaving behind nothing for advancing enemy forces. The Navy also redeployed United Nations (UN) forces from Chinnampo and Inchon on the west coast. Thus, during December 1950, the U.S. Navy conducted *five* nearly simultaneous amphibious redeployments from both coasts of Korea. The total evolution was remarkably well organized and executed; not a single life was lost to enemy action, and material losses were light.[9]

Oddly, Hungnam and its associated efforts never worked their way into the American mythological consciousness—although, justifiably, the 1st Marine Division's epic fighting withdrawal from Chosen to Hamhung did.[10] It was, rather, the brilliantly conceived and executed landing at Inchon in September 1950—a masterstroke that reversed the tide of the Korean War—that immediately captured the popular imagination and continues to receive the lion's share of attention from military historians and the military itself.[11]

More important, the amphibious withdrawal, generally speaking, has never worked its way into U.S. doctrine in a meaningful way. Recognizing the requirement for seizing advanced bases in support of War Plan ORANGE, the U.S. Marine

Corps in its 1934 *Tentative Manual for Landing Operations* laid the intellectual foundation for the great amphibious assaults of Campaign GRANITE in the Central Pacific, General MacArthur's Southwest Pacific campaign, and the Mediterranean and European campaigns. By war's conclusion, the amphibious assault, even of the magnitude and complexity of that planned for the September 1945 invasion of Kyushu, largely had been rendered a well-structured problem.[12]

Conversely, the *Tentative Manual* did not contemplate amphibious withdrawals. The Navy's 1938 *Manual for Landing Operations,* known as FTP-167, provided doctrinally only for planning and organizing the amphibious *assault*—ditto for the Army's 1941 *Landing Operations on Hostile Shores* (FM 31-5); both were derived from the *Tentative Manual.* As it happened, World War II brought no such reversals of fortune for U.S. forces. Although it was believed at certain junctures that, the situation being in doubt—notably, in the 1943 operations at Buna (New Guinea) and Anzio (Italy)—amphibious extraction might be required, in the event it was not, and no practical experience was gained. The extent to which narratives of the various World War II withdrawals conducted by other militaries then penetrated American military consciousness remains unclear, but it cannot have been very great.

We are only slightly better off today. Joint Publication (JP) 3-02, *Joint Doctrine for Amphibious Operations* (its current edition was issued in August 2009), recognizes and defines amphibious withdrawal but devotes only two pages, out of more than two hundred, to it.[13] The subsidiary 1989 JP 3-02.1, *Joint Doctrine for Landing Force Operations,* last updated in 2004, granted the withdrawal several more pages, but surprisingly the current (2010) JP 3-02.1, now entitled *Amphibious Embarkation and Debarkation,* fails even to mention withdrawal—presumably "embarkation" (an aspect of movement) and "withdrawal" (a form of maneuver) are to be treated as synonymous.

Perhaps a certain misplaced optimism now makes it difficult to imagine a future situation in which an amphibious withdrawal might be appropriate. This would be thin gruel for the commander who confronts the real-world necessity for such an operation. Consequently, even though now sixty years in the past, the Hungnam redeployment still warrants our careful consideration. It offers enduring lessons with regard to the problem of amphibious withdrawal; to the process by which it was conceptualized, planned, and organized; to the practical value of sea control to the conduct of land operations; and to effective approaches to solving ill-structured military problems.

KOREA IN 1950

The Korean War was a land war, and yet, because of the theater's geography and the state of its communications infrastructure, friendly naval forces played an

essential role throughout. The Korean Peninsula, which runs roughly six hundred miles north to south, has an east-to-west span of mostly less than two hundred miles, leaving few locations more than a hundred miles from the coast. Its area totals about eighty-three thousand square miles. The northern part is defended by high mountains—a long mountain string isolates a major portion of the east coast—and the west is marked by hills and river drainage basins. In 1950, notwithstanding forty years of Japanese occupation, land communications remained difficult at best, with few sealed roads or railroads available to negotiate the difficult terrain. These few road and rail lines described more or less an X, with its intersection at Seoul. Movement north and south, though problematic, was easier than east and west.

Militarily usable ports, shown on map 1, then comprised, on the west coast, Chinnampo, Inchon, and Kunsan, dominated by the great tidal range of the shallow Yellow Sea; on the east were Songjin, Hungnam, Wonsan, and Pusan, with deep water just offshore. Sailing distances from major American naval installations in Japan to Korean ports were short enough to allow quick turnaround; even Yokosuka, for example, on Japan's east coast, lay only 655 sea miles from Pusan. Terrain and hydrography afforded additional opportunity and flexibility to forces capable of amphibious operations over the beach, as UN forces were.

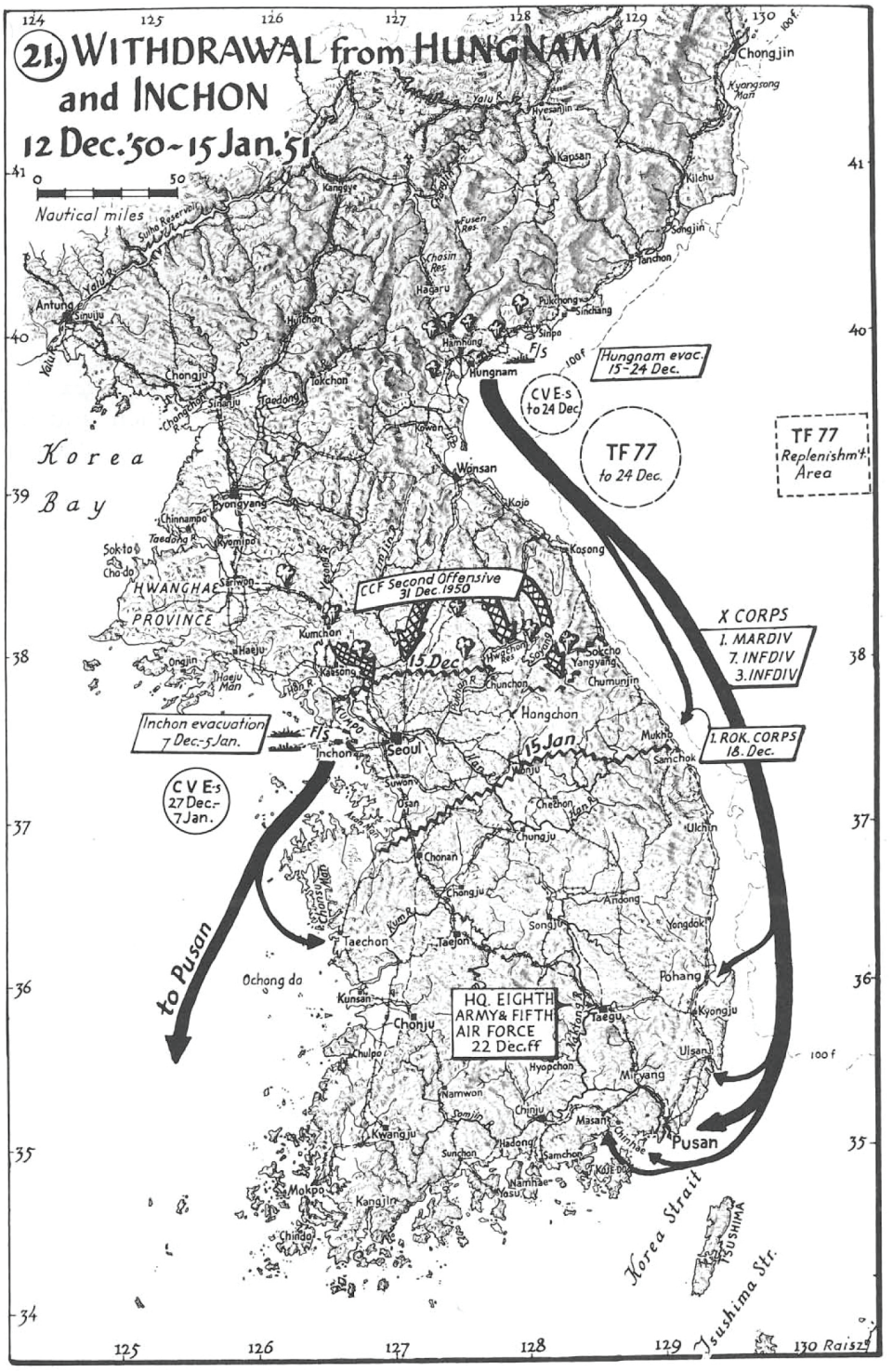
In short, the factor of space greatly favored the force able to assert and maintain sea and air control, granting it thereby greater freedom of movement and maneuver than a land-restricted opponent enjoyed. This essential fact had not escaped General MacArthur, who had learned the lesson during World War II and subsequently noted, in reference to the Inchon landing, that "deep envelopment, based upon surprise, which severs the enemy's supply lines is, and always has been, the decisive maneuver of warfare."[14] The general also properly understood that naval support secured his own lines of supply and provided the ability to hold necessary beachheads more or less indefinitely.

United Nations forces had promptly established sea and air control in the first days of the war and effectively exploited it for naval gunfire support, air strikes, air-to-ground support, and amphibious lifts and assaults. During the first year of the war North Korea and its Russian and Chinese sponsors made few attempts at sea denial, but among these, notably, were the extensive sea mining at Wonsan, the mining of Hungnam harbor, and the sowing of free-floating mines along the east coast.[15] The affected ports would play pivotal roles in the war.

THE ROAD TO HUNGNAM

Against this physical backdrop unfolded the events of the first six months of the Korean War. North Korean forces attacked across the thirty-eighth parallel in the small hours of Sunday, 25 June 1950. Four days later, General Douglas

MAP 1



Field, *History of United States Naval Operations.*

MacArthur, Commander, Far East Command, personally visited the active front just south of Seoul and concluded that U.S. naval and air support would be insufficient by themselves to stop the invaders, who were already sweeping aside the South Korean defenders. Absent immediate employment of U.S. ground troops, the North Koreans would surely overrun the entire peninsula. Piecemeal insertion of small U.S. units by airlift was succeeded by disparate small sealifts from Japan as MacArthur sought to buy time in order to mount an amphibious operation that would lay bare the North Koreans' lines of communications and enable their forces' envelopment and destruction. Events moved rapidly, however: the forces initially designated for a July assault at Inchon landed instead, on 17 July, at Pohang Dong, in order to reinforce the fragile Pusan perimeter—enabled by friendly sea and air control.

That perimeter held, and with the heroic deployment of the 1st Marine Division, speedy assembly of the requisite amphibious shipping over the next two months, and organization of X Corps, the general realized his operational vision with the 15 September Inchon landing. Although follow-on land operations failed to envelop and destroy the North Koreans as intended, the latter's offensive largely culminated, and, mostly no longer fighting in large, organized units, they fled north, pursued by Eighth Army units from the Pusan perimeter.

A second X Corps amphibious landing, this time on the east coast at Wonsan, aimed to cut off and complete the destruction of the invaders. Unfortunately, the Soviets had anticipated such an assault and had covertly commenced extensive mining in late July, the clearance of which delayed landing X Corps, reembarked after Inchon. The 1st Marine Division did not land until 26 October, while the 7th Infantry Division landed instead farther north, at Iwon. By that time the ground war had already largely passed north of Wonsan, although guerrilla activity plagued the mountainous areas just inland.

Meanwhile, an early October United Nations resolution had expanded the strategic objective from simply destroying the North Korean army and restoring South Korea's integrity to pacifying North Korea, which for the moment seemed entirely possible. The X Corps commander, Major General "Ned" Almond, repeatedly urged his subordinate ground commanders to move faster toward the northern reaches of Korea in the mountains adjacent to the Yalu River, which they did, as did their Eighth Army counterparts in Korea's west. Almond established his headquarters at Hamhung; the Navy cleared and opened the port at Hungnam for its support.

The Chinese had other ideas, however. Feeling threatened by the looming presence of United Nations forces near their border, beginning in late October they had secretly started moving vast numbers of ground troops into the mountains

of northern Korea. American forces took Chinese prisoners almost immediately. However, ambiguity initially obtained as to whether these were individual volunteers or from organized units. All doubt disappeared on 7 November, when the 1st Marine Division was hit hard by sizable Chinese units. Nonetheless, each succeeding estimate of Chinese strength was obsolete by the time it was published: 16,500 on 2 November; 100,000 a week later; 145,000 on the 15th; a range of 142,000 to 167,000 on the 23rd.[16] In fact, the Chinese had moved across the border in even greater numbers than those, and it was now an entirely new war.

On 15 November, in concert with an all-out air effort against the Yalu River bridges, MacArthur ordered X Corps to redirect its efforts to the west to assist Eighth Army; the Marines were to attack west against the enemy's line of supply —apparently on the assumption that they would meet little resistance—while other X Corps units moved north along the east coast. On 24 November, having opened Chinnampo for naval logistic support, and supported by Fifth Air Force, Eighth Army units attacked north from the Chongchon River—II Corps on the left, IX Corps in the middle, and the ROK II Corps on the right—with orders to link up with X Corps. Shortly, however, Chinese forces counterattacked heavily against the ROK II Corps, which broke, exposing the IX Corps right flank. The 5th and 7th Marine Regiments, by this time nearing the Chosen Reservoir, met heavy opposition and on the 27th were struck by two Chinese divisions.

"NO, GENERAL, WE DON'T KNOW HOW TO DO THAT"

The stage was now set for Eighth Army to commence its hasty retrograde movement in the west, while the Marines and fellow X Corps units were to begin their fighting withdrawal back to Hungnam.[17] Meanwhile, what of the Navy, which was cast in a supporting role to the land forces and might very well have to pull them all off the beach?

Within a week of the 7 November Chinese attack against the Marines, Vice Admiral C. Turner Joy, Commander, Naval Forces Far East, had published his Operation Plan 116-50, outlining general procedures for emergency evacuation of UN forces from Korea to Japan. It included hydrographic data on Korean ports, along with capabilities of available shipping, and it established command relations for the redeployment. On 15 November, the commanding general of 1st Marine Division, General Oliver P. Smith, conveyed his serious concern about the ground situation to the chiefs of staff of Vice Admiral Joy and of Rear Admiral James H. Doyle, commander of Amphibious Force, Far East, reinforcing the need for contingency plans. Joy, at the prescient recommendation of his deputy chief of staff, Rear Admiral Arleigh Burke (who had arrived in Japan in late August), began accumulating time-charter shipping in Japan rather than releasing it for return to the United States.

As was well known, and had just been proved once again in Korea, the U.S. Navy, Marine Corps, and Army were well prepared to make amphibious assaults. But they were not so well prepared for extractions. Although veteran amphibious professionals all, the commanders and their staffs on the scene in Korea had neither previous directly comparable practical experience nor specifically applicable doctrine to guide their thinking and decision making for Hungnam. Where the assault had been rendered a well-structured one by World War II experience, the withdrawal remained ill structured.

"Ill structured" problems are distinguished from "well structured" ones by the degree to which their boundaries, constituent parts, and the relationships among those parts are *understood.* That is, "ill" and "well structured" refer to the fidelity of the decision maker's representation of the problem to the existential problem itself. Well-structured problems are readily recognizable and assignable to discrete categories and are therefore directly susceptible of solution by computational means—that is, by selection and application of courses of action from existing solution sets. The pre–World War II *Tentative Manual for Landing Operations* had begun the practical structuring of the amphibious assault, which was understood to be necessary for acquiring the forward operating bases required for the anticipated Pacific campaign against Japan; forces required, phases, timing, sequencing, and synchronization were all roughed out. Careful assessments of initial wartime amphibious experience refined that structuring: shipping requirements, command relations, prelanding bombardment, coordination of close air support, and hydrographic intelligence were all adjusted. The organization of boats for ship-to-shore movement was carefully reworked. By the time of the June 1944 Marianas operations, the problems had been so thoroughly structured that the plans were confidently executed against more or less alerted opposition.

Conversely, ill-structured problems require decision makers to impose structures on them and to *generate* solutions for them—often at the same time. Typically, ill-structured problems are those that have not been encountered previously in quite the same forms and for which no predetermined, explicit sets of ordered responses (i.e., doctrines) exist.[18] In war, it may be said, each opponent attempts to present the other with enough surprise that the problem posed cannot be structured and made solvable in the time and with the forces available.

Thus, Japan's systematic employment of thousands of kamikazes and hundreds of *Shinyo* and *Renrakutai* surface suicide boats against U.S. naval forces at Okinawa for a time rendered ill structured the problem of force protection. The practical challenge was simultaneously to figure out the structure of these threats and to devise effective methods for dealing with them.[19] Out of 1,300 ships involved at Okinawa, assaulted in the teeth of that dual challenge, the "Fleet That

Came to Stay" sustained thirty-six ships sunk and another 368 damaged, with more than 4,900 sailors killed.[20]

Neither do ill-structured problems remain constant while decision makers seek to impose structure on them. Their components and their interrelationships often change in a very short time frame, rendering initial efforts to understand them obsolete—especially in war, which we understand as a complex interactive system. This was the case in November–December 1950 in Korea. Both the operational situation and understanding of that situation changed rapidly. The Navy's practical challenge was to ascertain what rapidly changing conditions on the ground and successive decisions by MacArthur and his principal ground commanders would demand of it for support.[21]

The learning curve for ill-structured problems is generally very steep, and trial and error constitute the main mechanism for generating information and reducing uncertainty about the problem—that is, converting it into a well-structured one. Notably, the centralized, hierarchical organization structures effective for well-structured problems do not fit ill-structured ones, which are more readily addressed by decentralized, self-organizing systems, within which discretion resides at many points. Such systems allow experts to exercise their best judgment, adjusting as required, while achieving unity of effort principally through lateral communications.[22] Even then, the most that can be attained in real time is to render such problems well structured in the small, while the larger problem remains ill structured.[23] The structure of the overall problem will likely only be known in retrospect, *after* its attempted solution.

Although no name for the concept had yet been coined, Rear Admiral Doyle implicitly grasped the challenges posed by an ill-structured problem and the relationship between type of problem and the command-and-control (C2, in today's shorthand) relations that would be appropriate. He proceeded accordingly.

Doyle realized that the unprecedented character of the potential problem of extracting large numbers of troops and amounts of equipment from widely separated hostile beaches on two coasts dictated against a programmed, standard C2 structure below. As Commander, Task Force (CTF) 90, he had at his disposal Amphibious Groups 1 and 3. Facing the prospect of simultaneous retrograde movements by Eighth Army on the west coast and by X Corps on the east, Doyle retained overall command of the redeployments but directed Amphibious Group 3, under Rear Admiral Lyman Thackrey, to attend to Eighth Army at Chinnampo and Inchon, leaving Amphibious Group 1, under his direct command, to support X Corps at Songjin, Wonsan, and Hungnam.

At MacArthur's request, Amphibious Group 1, under Doyle, had arrived in Japan in early June 1950 to train Eighth Army in battalion-level amphibious operations. The day North Korea attacked, it was conducting a landing exercise at

Sagami Wan. Initially little more than a token training unit, during the months preceding Hungnam the group grew many times over to become a full-fledged amphibious force.

Doyle was a distinguished veteran amphibious officer, arguably the most amphibiously experienced serving senior officer. He had been Admiral R. Kelly Turner's operations officer at Guadalcanal, 1942–43, and had then served in Admiral Ernest King's Commander in Chief Amphibious Section, 1943–45, including work on the Joint Amphibious Warfare Committee. In early 1948 he had assumed command of the Amphibious Training Command at Coronado, California; in January 1950 he reported as Commander, Amphibious Group 1.

Officers with extensive World War II amphibious experience populated Doyle's staff. They were overqualified and technically too senior for their billets—the fortuitous result of a difficult civilian economy and a greatly drawn-down Navy. They knew in detail the intricacies of amphibious planning. They were used to working together, having experienced little turnover in the preceding two years, and had planned and executed three major amphibious exercises in the spring of 1950, followed by the three major Korean amphibious operations. The admiral knew his staff, its members knew each other, and all had developed effective working relationships.

Doyle, in his capacity as CTF 90, had a second capable amphibious force in Thackrey's Amphibious Group 3. It had arrived in Korea shortly following Inchon. Thackrey had run that port's operations after its capture and in October landed the Army's 7th Division at Iwon.

Mobile Training Team Able of the Amphibious Training Command's Troop Training Unit had embarked with Amphibious Group 1 when it went to Japan. Commanded by Colonel Edward H. Forney, USMC, Team Able's officers and men had worked together for some time and were personally known to Doyle. Team Able had been integral to all three previous amphibious operations. Doyle had seconded the unit to the 1st Cavalry Division (which lacked amphibious-experienced personnel) to plan that division's part in the Pohang Dong landing. Doyle then placed the unit on a similar temporary assignment with X Corps for the Inchon and Wonsan-Iwon operations; Forney served as the corps's deputy chief of staff. He and his men did the bulk of that command's amphibious planning for those operations.[24] Thus, Team Able and Amphibious Group 1's staffs were no strangers to each other; neither were Team Able and X Corps staffs strangers. Doyle later commented that Forney "could get along with anyone—and without compromising himself. This facility proved invaluable, for the corps commander [Almond] was at best prickly, at worst arrogant and overbearing."[25] Conversely, Doyle and Major General Smith had quickly developed a close and mutually respectful relationship in planning and executing the Inchon and

Wonsan-Iwon operations, which was mirrored in the effective working relationships between their staffs (Smith and most of his staff had sailed on board Doyle's flagship for both operations).

Secure in the knowledge that they were seasoned professionals who had learned their craft not in peacetime training but in the hard schools of the Southwest and Central Pacific, Mediterranean, and European campaigns of World War II, Doyle, as we shall see shortly, would grant his subordinates considerable independence to make such arrangements for the Hungnam redeployment as their professional experience suggested were appropriate. The several elements were then to coordinate as required to achieve unity of effort through direct lateral communication.

Doyle understood that effectively addressing the problem of amphibious withdrawal also required that he be afforded by his own superiors considerable leeway in the exercise of command. Shortly after October 1950's Wonsan-Iwon operation, Doyle plainly told his "old and very close friend" Vice Admiral Joy that he could not and would not come under the Seventh Fleet commander, Vice Admiral Arthur D. Struble, in any future operation. (Figure 1 shows the Naval Forces Far East command organization obtaining in November 1950.) Doyle's conflict with Struble, eight years his senior, no doubt had roots in personalities, and perhaps in competition for credit, but it extended well beyond into profound differences in professional philosophy and practice.[26]

For Inchon and Wonsan-Iwon, Doyle had reported directly to Struble. During these operations, Doyle felt, Struble had regularly interfered in his exercise of command. Consequently, judging that he needed Doyle's expertise more than Struble's, Joy issued on 13 November a preliminary plan for evacuation of UN forces from Korea that established a naval task organization as shown in figure 2. It had Doyle reporting directly to him, while granting Doyle considerable discretion and unusually wide-ranging responsibilities, not only for the redeployment itself but for shipping protection, control of air support and naval gunfire support in the embarkation areas, and maintenance of the blockade along the Korean east coast. Joy directed Struble to provide support to Doyle.[27] At the same time, this unusual arrangement allowed Struble freedom of maneuver and the ability to address whatever threats the Soviets and Chinese might pose from the sea, either to Doyle's operations or, in the worst case, to Formosa or Japan.

Subsequently, however, the Chief of Naval Operations (CNO), Admiral Forrest Sherman—who believed Hungnam carried potential for great disaster—intervened. He did not want an amphibious commander to control the fast carriers. He was also well aware of continuing friction between Struble (who was his protégé) and Doyle. Sherman had previously weighed in with Joy after July 1950's Pohang Dong landing, and as a result the command relations that had obtained

for both Inchon and Wonsan-Iwon had been those acceptable to Struble (but not to Doyle). For his part, Doyle believed that "Sherman knew little, if anything, about amphibious operations"; of his own relationship with the CNO, he later commented, "We never were mutual admirers."[28]

Sherman directed Admiral Arthur Radford, Commander, Pacific Fleet, to give Lieutenant General Lemuel C. Shepherd, Commander, Fleet Marine Forces, Pacific, verbal orders (of which Joy was ultimately made aware) to go to Korea (his fifth trip there) and assume command at Hungnam if, in *his* judgment, Doyle was not executing effectively. Doyle learned of Shepherd's orders only years later.[29] Major General Smith knew only that Shepherd was the CNO's representative at Hungnam.[30]

In the end, however, Joy's C2 structure stood, with its great leeway granted Doyle to organize and execute the redeployment operations, as well as the forces requisite to the job—amphibious shipping, naval gunfire ships, escort-carrier-based aircraft, and Marine ground-based air. Doyle coordinated additional air and naval gunfire support with Struble as needed. Although the Air Force did not contribute air-to-ground support to X Corps, it provided night "heckler" coverage, and its transports proved essential for evacuating the wounded from Chosen Reservoir.[31]

FIGURE 1
NAVAL OPERATING COMMANDS, KOREA—NOVEMBER 1950

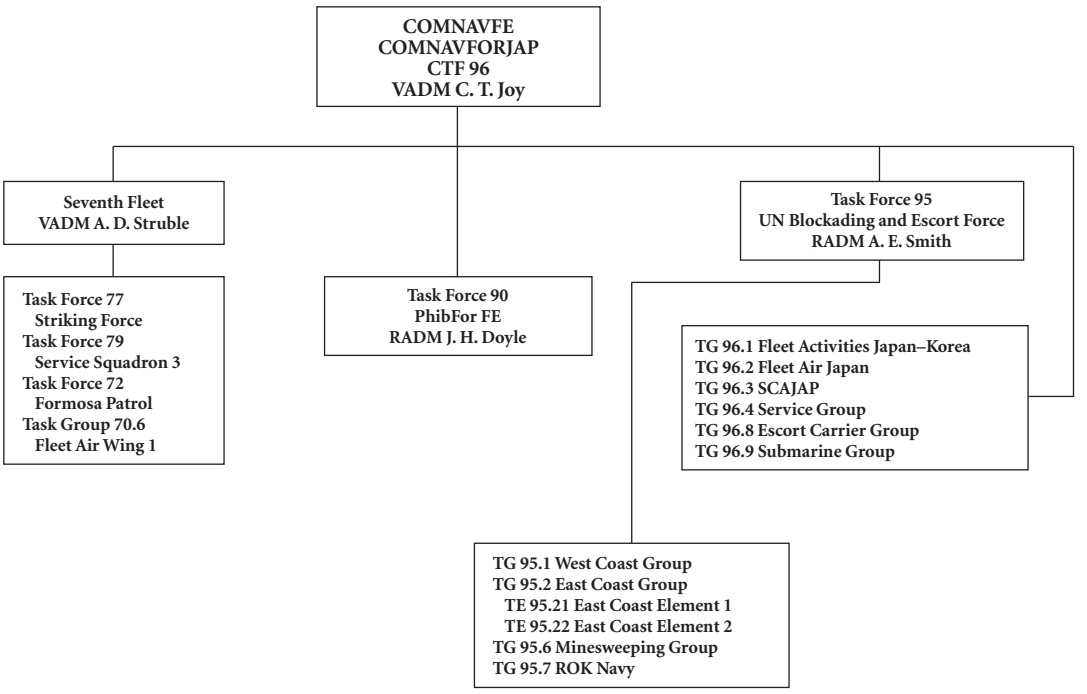
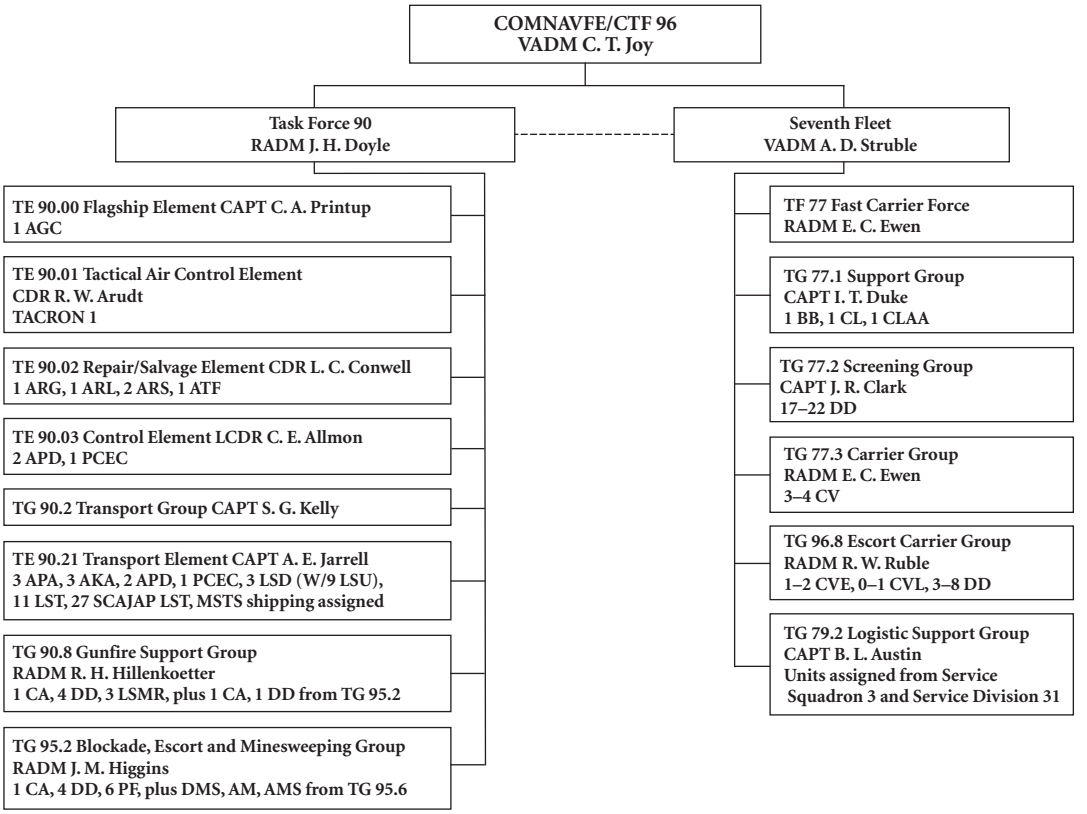


FIGURE 2
NAVAL TASK ORGANIZATION FOR HUNGNAM—DECEMBER 1950



ACCELERATING EVENTS ON THE GROUND

On 28 November Joy alerted Doyle to the high probability of major evacuation operations. Doyle immediately commenced planning for "redeployment by water of own and friendly troops in Korea either as an administrative 'outloading' or a general emergency based on Joy's OpPlan 116-50." Joy advised Doyle to put his ships, then still in Japan, on six-hour notice for movement to Korea. Doyle in turn directed his ships to assemble in Sasebo (a short 165 miles from Pusan) and issued Operation Order 19-50 for planning purposes. His basic plan was for Amphibious Group 3 to conduct west-coast operations and Amphibious Group 1 east-coast operations, while overall responsibility remained with Doyle as Commander, Task Force 90.

On 30 November, MacArthur directed X Corps to concentrate in the Hamhung–Hungnam area, while Eighth Army retired southward to Pyongyang and Seoul. Doyle now placed all ships in port on two-hour notice, and Amphibious Group 3 departed Japan for Inchon. However, Eighth Army's rapid southward movement had already uncovered Chinnampo, necessitating redirection of the group to that

port. Late on 3 December the transport group steamed up the eighty-four-mile swept channel to Chinnampo, on the assumption that an evacuation was imminent but without specifics on troops and equipment to be extracted, the tactical situation, or even who was to command the operation.

Fortunately, Thackrey discovered that shipping already in place at Chinnampo was adequate to requirements. He had extracted 1,800 Army and Navy port personnel and 5,900 ROK troops, along with civilian refugees who showed up unannounced, by late 4 December.[32] At Inchon, from 7 December to 5 January, when the port was closed and destroyed even as Chinese troops entered the city, Thackrey outloaded 4,693 UN and 63,220 Korean military personnel, 1,404 vehicles, and 62,144 tons of cargo, along with 64,200 Korean civilians, all subsequently landed at Pusan.[33]

For the moment, it remained unclear whether United Nations forces would have to withdraw entirely from Korea to Japan or could and would maintain lodgments at Pusan and Hungnam throughout the winter. However, on 1 December the Joint Chiefs of Staff instructed MacArthur to withdraw X Corps and "coordinate" that movement with Eighth Army, which was to hold its position across the waist of Korea. On 7 December high-level discussions in Tokyo modified that plan to have Eighth Army hold Seoul until it became necessary to retire upon Pusan.[34] The following day, when the senior Navy and Marine commanders conferred on board Doyle's flagship, they still had to consider two possibilities: that of establishing and maintaining a lodgment at Hungnam and the more likely one of withdrawal. Fortunately, the next day the Joint Chiefs approved the revised plan, and the decision was made to redeploy south.

Such fluidity does not conduce to easy operational planning, but Doyle and his staff met the challenge, having preliminary plans already in hand both for defending a perimeter at Hungnam and for withdrawing from that port, as well as from other east- and west-coast ports. Now they knew they would be executing a withdrawal: "Troops and supplies that had reached the theater through three ports and troops that had arrived overland now had to be funneled out through a single harbor; personnel and gear that had come in over a period of two months were to be removed in the space of two weeks."[35] At the same time, the amphibious forces had to continue unloading supplies required by the withdrawing troops and those supplies necessary to the defense of the perimeter around Hungnam.

Doyle and his staff initially made the analogy between the operant conditions of the redeployment problem and an "amphibious landing in reverse." Suppose one filmed an amphibious assault and then ran it backward—what would the operation look like? It proved an apt connection and provided the starting point (but only that) for imposing a structure on the problem and devising a course of

action for its solution. Doyle decided that excess supplies and supporting troops would embark first; thereafter, as the beachhead shrank with the embarkation of combat forces, naval gunfire and air support would ensure that there was no diminution of combat power ashore. At the conclusion, naval bombardment would be the only force "ashore."[36] Doyle had previously commenced mine clearance at Hungnam to expand the safe anchorage area, provide an expanded safe channel from the anchorage to seaward, and establish channels for gunfire-support ships.

On 1 December X Corps reported that 3rd Infantry Division at Wonsan was under heavy enemy pressure and that road and rail lines between there and Hungnam had been cut, and it requested an amphibious redeployment of the division. Doyle decided to conduct this initial evacuation as a small-scale test of his tentative plans and procedures for Hungnam. It would illuminate the strengths and weaknesses of the proposed staged reduction of the defense perimeter around the Hungnam harbor—in effect, telling him whether or not he had gotten about right the structure of the problem. In the event, at Wonsan the

> evacuation plan was simple and direct. The troops ashore described around the city an arc whose radius they progressively reduced as supplies and personnel within the beachhead loaded and left. The fire support ships isolated Wonsan by shellfire, fired any observed missions [i.e., spotted by controllers, in observation aircraft] requested, and at night provided random harassing and interdiction fires on pre-selected targets and fired star shells for battlefield illumination.[37]

Fortunately, it was already clear when Doyle arrived at Wonsan on 4 December that there was no significant enemy pressure and that all but the rear elements of 3rd Division had already moved by road to Hungnam. Consequently, he revised lift requirements downward. Ultimately, 3,800 3rd Division troops, seven thousand refugees, 1,146 vehicles, and ten thousand tons of cargo outloaded by ship from Wonsan from 3 to 5 December.

The experiment validated Doyle's initial hypothesis, and his staff began preparing detailed plans for Hungnam based on lessons learned there. Subordinate units proceeded simultaneously in their own planning, communicating continually with Doyle and his staff, who remained on board his flagship, USS *Mount McKinley* (AGC 7), anchored in Hungnam harbor. On 6 December, Doyle sent a small force from Wonsan to lift ROK I Corps from Songjin to Hungnam. Operations at Songjin closed out on 10 December.

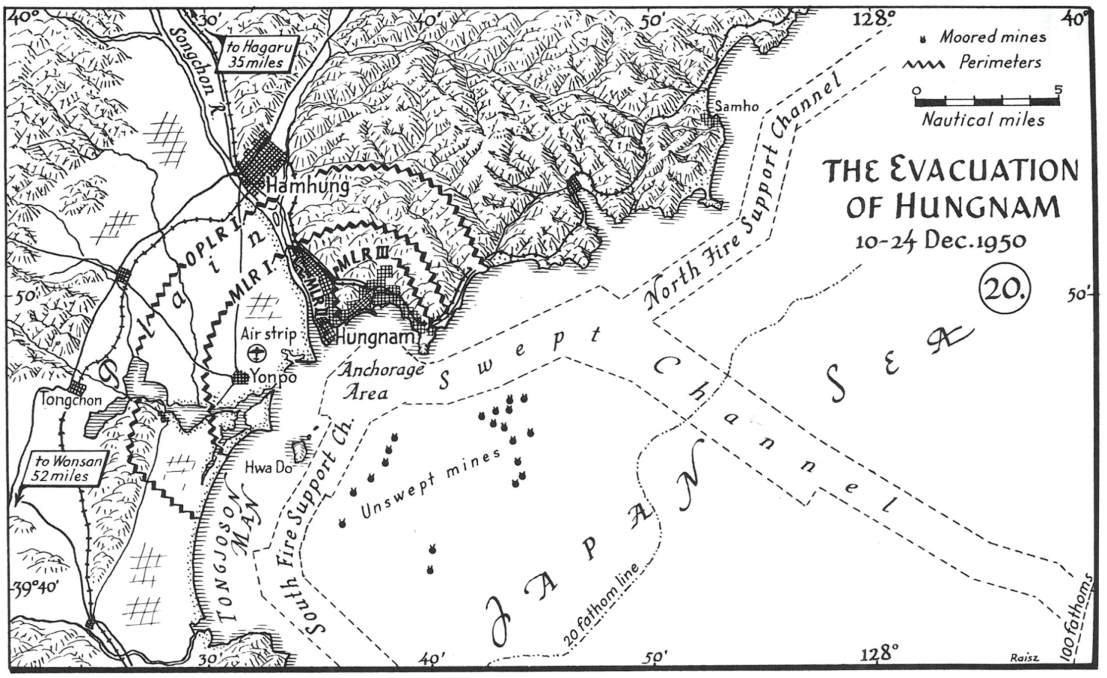
ORGANIZATION AT HUNGNAM

As map 2 indicates, Hungnam was well suited to serve as the principal port for the redeployment. As one historian describes it, the

city of Hungnam, manufacturing center as well as seaport, lies in the northwestern corner of the Korean Gulf near the delta of the Songchon River. Although Hamhung, its inland satellite, is an important road and railway center, Hungnam is the larger of the two, with a population in 1950 a third again that of Wonsan. The bay on which the city lies is open to the south, but the inner harbor is protected by a 2,200-foot wharf with four fathoms of water and by a breakwater. Other smaller wharves existed, as did heavy loading equipment, developed to handle the products of the city's chemical industry. As at Wonsan, a 100-fathom curve runs 30 miles offshore and the approaches are easily mined.[38]

In addition to the inner port facilities, shown in map 3, which would allow effective employment of standard cargo and transport shipping, Hungnam possesses beaches immediately adjacent to the port, shown in map 4, that were entirely suitable in their hydrography for beaching amphibious shipping and were readily defensible within the planned perimeter. Nearby Yongpo Airfield (see maps 2 and 4) served as the primary base for the 1st Marine Air Wing, which was to provide a major portion of the close air support and combat air patrol. Equally important, X Corps headquarters had been established and remained at Hamhung, facilitating easy communication between the ground commander and the amphibious commander and their staffs.[39] Moreover, in order to facilitate the logistic support

MAP 2



Field, *History of United States Naval Operations.*

of X Corps, beginning on 7 November the Navy had addressed the Soviet-laid mines at Hungnam, declaring the port open four days later. Thus, the port was well located, suitable to the endeavor, and for Doyle a known quantity.

The amphibious group staff held an operations planning conference on board *Mount McKinley* on loading and ship control on the afternoon of 9 December, followed by another planning conference ashore with representatives of X Corps and the Army 2nd Engineer Special Brigade. Firm plans for loading were made during a final staff conference that night and were approved by Doyle. The Control and Loading Plan, based on a staff study of the harbor's physical capabilities, established a series of control posts, for which a special task organization was formed. Doyle assigned to each control station the most able and experienced officer and enlisted personnel available from the staffs of CTF 90; the Military Sea Transportation Service (MSTS), Hungnam; Fleet Activities, Hungnam; and other naval units. "The general experience and 'know how' of all hands was utilized to the utmost *as no one present* [had] *previous actual experience with an operation of this type.*"[40]

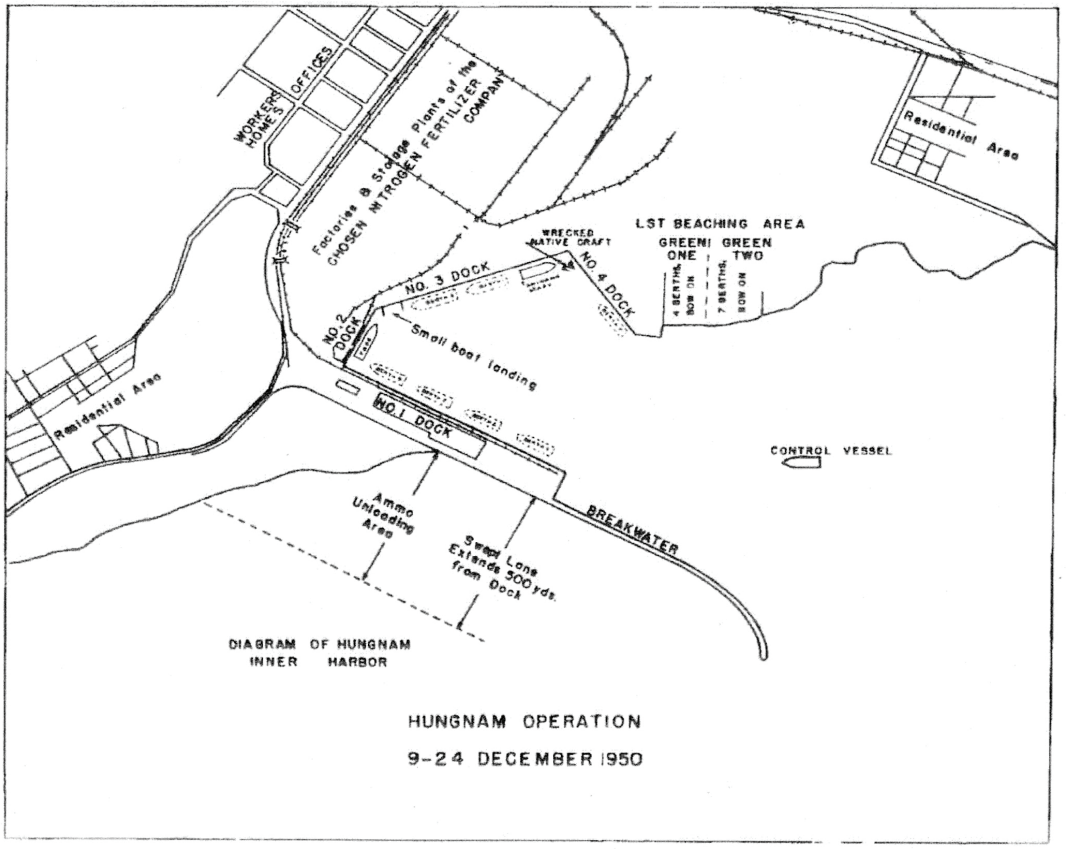
The CTF 90 operations section (on board *Mount McKinley*) constituted one of the control stations; it coordinated all ship movements, assigned anchorages, issued docking instructions, and prepared and issued sailing orders for all Navy and SCAJAP (Shipping Control Authority, Japan) shipping.[41] It also supervised operations of all other control stations. MSTS activities at Hungnam were integrated with the operations section on the flagship, with responsibility for all MSTS shipping engaged in the operation. Physical colocation facilitated easy, close, and clear communication between the two entities.

A radio-equipped harbor-control vessel stationed in the port managed shipping, twenty-four hours a day. An officer boarded each MSTS-operated ship immediately on its arrival to assess its load status, capacity, amount and condition of loading equipment, and any peculiarities relevant to loading. This information went to CTF 90 Operations by radio. All such ships were directed to be ready for movement on immediate, two-hour, or later notice as required.

On 9 December a X Corps embarkation control group was established to provide overall Army supervision of corps loading, with a control officer, an executive officer, representatives from each of the corps's technical services, and the CTF 90 staff combat cargo officer as liaison officer. Transient members, as required, included embarkation control groups from 1st Marine Division, 7th Division, 3rd Division, and ROK I Corps. As during the Inchon and Wonsan-Iwon landings, Colonel Forney's Marines did the actual planning for X Corps.

Forney himself served as the shore-based control and loading officer, performing with "consummate skill." Set up in a shed on the docks, Forney assigned his

MAP 3



U.S. Navy

officers and enlisted personnel to key positions in this control station, "where their four months on the X Corps staff resulted in excellent relationships." Doyle found that General Almond "cooperated fully and ensured that his subordinates followed his example. He established X Corps embarkation priority as personnel, [then] vehicles, [then] equipment, supplies, and refugees. But he never objected to departures from that order, knowing that we had good reason when we did so."[42]

Forney and his staff "selected the X Corps units to be loaded on the basis of available tactical and administrative information and assigned shipping in consultation with the operations section of TF 90. Port operating units were then advised of dockside requirements, the loading section ground out its plans, the movement section got the traffic down to the water, and the rations people laid down these useful items alongside."[43] This control group maintained nearly constant direct telephone communication with all relevant units and CTF 90 Operations.

Each corps unit provided its embarkation control group with a "readiness for loading" report (covering personnel, vehicles, and bulk cargo, etc.) prior to its

MAP 4

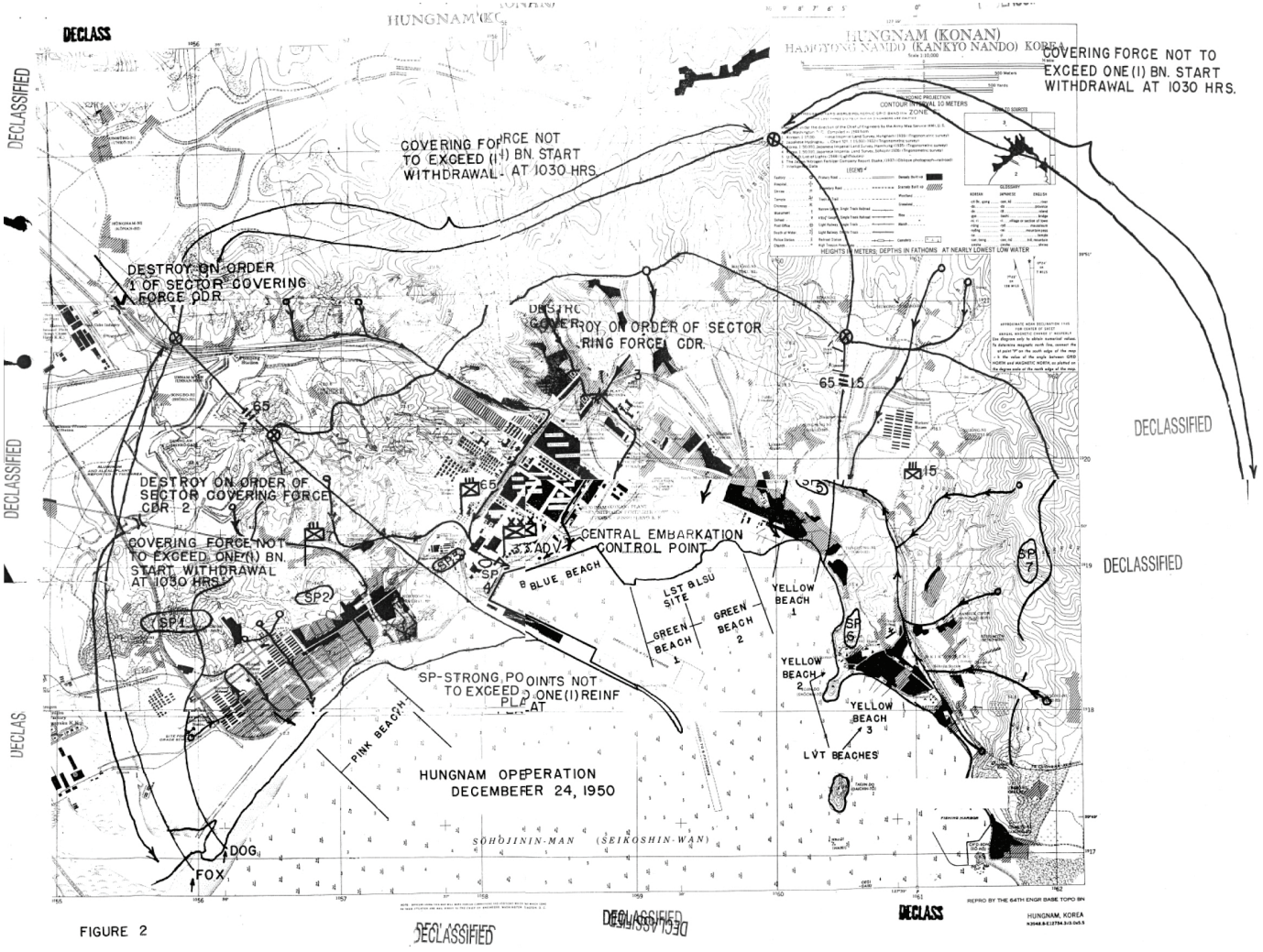


FIGURE 2

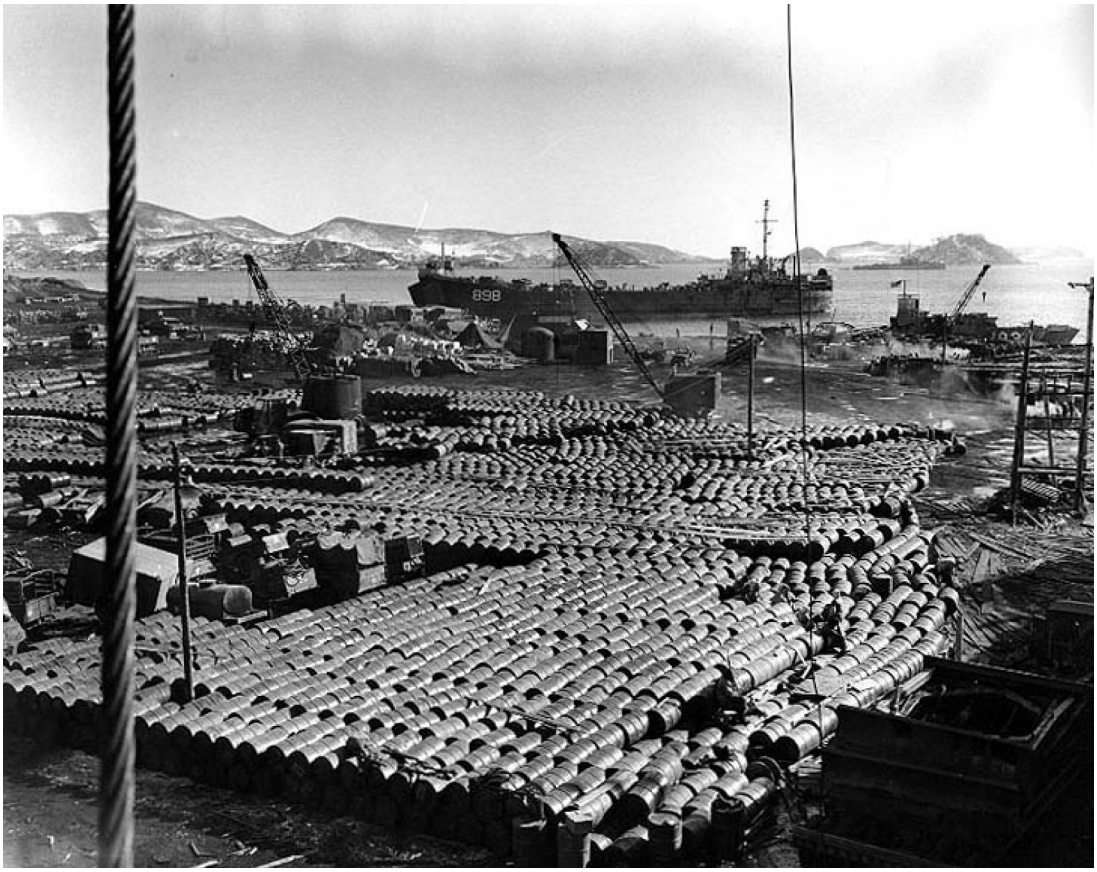
Source: U.S. Navy

time to commence loading as promulgated in the master schedule, which hinged on the tactical situation. X Corps broke the report data into shipping requirements, as advised by the combat cargo officer. CTF 90 Operations assigned suitable shipping, on the basis of these requirements and available berths. The embarkation control group was provided the identities of the ships assigned, along with data on their capacity, booms, etc., and planned a "paper load." Shortages and overages of shipping space were immediately reported to CTF 90 Operations, and the embarkation control group adjusted plans as necessary.

The port director maintained operational control of actual docking and undocking of all ships and of the movement of all shipping in the inner harbor. Three qualified CTF 90 staff officers were assigned to Port Director Control. A radio-equipped landing craft assigned to the port director (and shared with the beachmaster, described below) served as a dispatch boat. Ships moored at one of seven berthing spaces alongside four docks. Experimentation quickly led to procedures for the most efficient use of these limited spaces (including, importantly, double-banking ships at the docks). Two radio-equipped Army yard tugs made it possible to dock and undock ships rapidly.[44]

CTF 90 Operations advised the port director that a given ship was to be docked at a given berth as a replacement for the ship there, then directed it to proceed from its anchorage and wait in the vicinity of the breakwater for a pilot, who docked the ship. Doyle and his staff contrived so to "time the process that the new ship reached her berth at the same time the first troops and supplies to be loaded came alongside," and they usually met that goal.[45] The embarkation control liaison officer advised CTF 90 Operations of the time a given ship would finish loading, and the latter assigned it a "chop time" that was given to the port director. At that time the ship was undocked and got under way.

The Beachmaster Control Unit controlled beaching and retracting all tank landing ships (LSTs) in the LST beaching area (Green Beaches 1 and 2; see map 4), a function analogous to that of the port director. An MSTS officer with a great deal of previous LST experience, assigned as beachmaster, piloted most of the SCAJAP LSTs onto the beach (where they would open their bow doors, drop a ramp, and "onload" vehicles and cargo directly, backing off the beach, with the help of an anchor dropped astern, when ready). The beaching area could handle eleven LSTs simultaneously; additionally, three LSTs could be berthed at Dock No. 4 when the Green Beaches were full, or immediately adjacent to that dock at Blue Beach. CTF 90 Operations delivered sailing orders to each LST before it was loaded. Once the Shore Party (below) notified the beachmaster that an LST was loaded, the latter forwarded that information to the CTF 90 liaison officer at X Corps headquarters by radio. The liaison officer then obtained final clearance for sailing and in turn informed the beachmaster, who directed the LST to



Hundreds of aviation gasoline drums await evacuation on the Hungnam docks, 14 December 1950. USS *LST-898* is in the center, with a LCU at right and the harbor entrance control frigate (PF) in the background. View looking northeast from Blue Beach across the inner harbor.

U.S. Navy

execute its sailing orders (and assisted, with boats, in its retraction from the beach if required). Additional assistance was provided by a SCAJAP headquarters staff officer temporarily assigned to CTF 90 Operations.

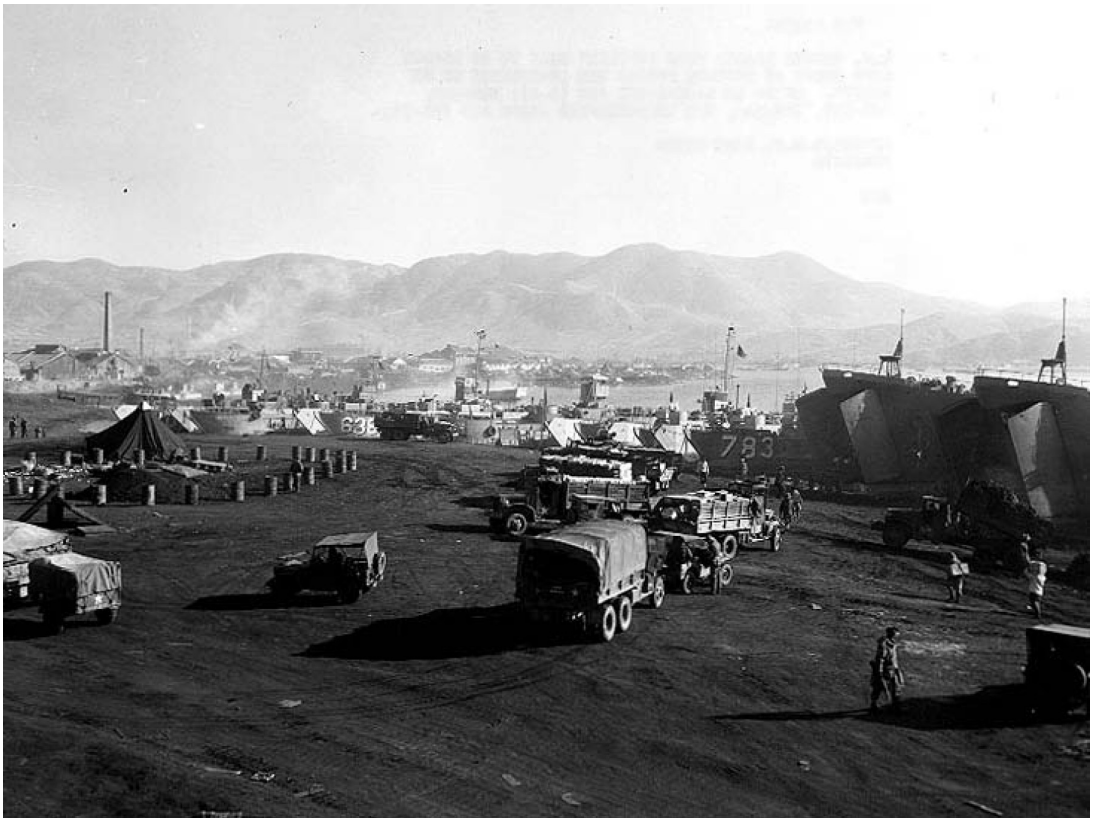
A control officer and small staff (on board the Control Ship) directed movement of all utility landing ships (LSUs) and smaller craft in the inner harbor. The control officer also assisted in directing movements of the LSTs, in coordination with the beachmaster and the port director. This was a busy station, twenty-four hours a day.

Doyle assigned his staff civil engineer to the Army 2nd Engineer Special Brigade, which served as the Shore Party—responsible for physical aspects of the loading. The civil engineer liaison officer advised the brigade in order to expedite loading and kept CTF 90 Operations informed of loading progress in real time. Doyle later commented that this "Liaison Officer solved any problems which arose and was extremely valuable as an 'expediter' who had direct contact with all Army and Navy Control Stations connected with the operation."[46]

A truck convoy moves along a beach road to the evacuation beach, 18 December 1950. Two Japanese-manned LSTs and USS *LSM-419* are loading.
U.S. Navy

Each control element worked independently on those matters that it could handle without reference to the other elements and coordinated with the others when required. However, given the extremely compressed time frame, the discretion Doyle granted his subordinates would have been for naught absent a simple, effective, real-time communications system: the admiral believed that "the most important factor in the operation of the control organization was the establishment of special primary and secondary very-high-frequency voice radio circuits directly connecting Control Stations." All stations used the primary circuit except the station manned by the CTF 90 liaison officer at the X Corps embarkation control group, who had near-exclusive use of the secondary circuit. Ultimately, however, both circuits were used whenever necessary due to difficulties in communication. A simple numerical code was employed to identify ships easily and still maintain security.

Qualified operators served on each station on both circuits, but in order to eliminate delay or misunderstanding in operational traffic, "*all except routine messages of minor importance were transmitted by the officers concerned speaking directly to each other.*"[47] Officers spoke directly to other officers and therefore



Amphibious shipping beached at Hungnam during the evacuation, December 1950. LCUs present include *LCU-520, LCU-638, LCU-742,* & *LCU-783.*
U.S. Navy

solved problems, kept everyone concerned informed, made or obtained decisions rapidly, and issued orders in the most efficient manner possible under the circumstances.

In the harbor, CTF 90 Operations primarily used visual signals (flag hoist and flashing light) to handle administrative traffic and to communicate with MSTS ships present. During 7–24 December, *Mount McKinley*'s signal bridge handled 1,124 outgoing and 1,104 incoming dispatches. Overall, 44,750 dispatches were handled on the flagship during the period, including 24,630 on the tactical circuits and 17,982 in Radio One (the ship's "radio shack"). Such communications arrangements permitted ready adjustment and adaptation as circumstances changed and as new, unanticipated problems arose. At the same time, individual control posts were not overburdened with information they did not require to conduct their activities.

"WALK, DON'T RUN TO THE NEAREST EXIT"

Because the outloading could function smoothly without Doyle's direct supervision, he was able to focus on "preventing the enemy from establishing itself close

enough to our troops to cause casualties. To that end [he] used air attacks and naval gunfire to maintain the necessary separation. Basically, [he] put in front of the U.N. units a zone of fire through which the enemy could not pass."[48]

Doyle directly controlled the naval gunfire support element. From 7 to 15 December he stationed ships of this element where, as shown on map 2, they could simultaneously deliver emergency "call fire" (that is, requested by troops without notice) for X Corps and defend local shipping against enemy air attack. On 15 December, stationed in the assigned mineswept channels (extending ten miles north and south of Hungnam), the ships of the element began deep-support fires (while X Corps artillery provided close support)—principally eight-inch interdiction and harassing fires and five-inch illumination rounds (enemy forces tended to press on friendly lines at night). As the perimeter contracted, the gunfire support ships moved to closer stations as required for direct troop support. Both observation and fighter aircraft located targets of opportunity and supplemented ground observation. *Missouri* (BB 63) arrived at Hungnam on 24 December to provide additional fire.[49]

The 1st Marine Air Wing at Yongpo Airfield (see maps 2 and 4) provided air support during the initial phase of the operation. It controlled all air support (including carrier-based) and served as the tactical air control center until 15 December, when Yongpo was uncovered by the contracting perimeter and it was flown out. The center moved to *Mount McKinley,* and CTF 90 assumed control of all air support within a thirty-five-mile radius of Hungnam, including TF 77 aircraft and Task Group (TG) 96.8 escort carrier aircraft, night hecklers from the Air Force and TF 77, and all reconnaissance and transient aircraft (see figure 2).

Throughout, Marine pilots in observation aircraft provided forward air control —they "understood the requirements of the troops and the capabilities of the covering aircraft and their armament loads."[50] Detachments from the Marine Air and Naval Gunfire Liaison Company (ANGLICO) served with X Corps Army units to maintain radio contact with the forward air controllers, supporting aircraft, and naval gunfire ships—the "ANGLICO's had the expertise necessary to call for and control the available support."[51] At sea, under TF 77, there were never fewer than four *Essex*-class carriers to provide air support, coordinated by CTF 90 Operations with CTF 77, as for the July 1950 Pohang Dong landing. Doyle handled air and naval gunfire communications in the manner prescribed for *assault* amphibious operations.

Doyle also shifted from shore-based to seaborne logistics, using floating petroleum and ammunition dumps, along with an evacuation center and a prisoner-of-war camp afloat. He ordered life jackets and debarkation ladders. He directed Thackrey to send all available attack transports and attack cargo ships (along with

one dock landing ship, or LSD) from Inchon to Hungnam and requested that Joy provide ten empty cargo ships daily at Hungnam until further notice.[52]

Doyle published his loading and control plan for Hungnam on 11 December. He issued Operation Order 20-50 on 13 December, incorporating his Operation Order 19-50 and consolidating previous dispatches. Plans for gunfire support and air support were finalized in coordination with the TF 77 operations officer, X Corps, and Commander, Cruiser Division 1.[53] Operations would proceed twenty-four hours per day.

That same day, Doyle assumed direct command of Hungnam port functions and commenced loading X Corps personnel, vehicles, and supplies. General Almond had proposed that the 1st Marine Division provide security for the operation. However, because the Marines had already borne the hardest fighting, Doyle insisted that they load first, while the 3rd Division supplied security, with the 7th Division taking over portions of the perimeter until the ROK I Corps cleared the port; then the last U.S. division would embark.[54]

The operation continued to present surprises. Doyle's staff had initially estimated, for example, based on Wonsan, that lift would be required for twenty-five thousand refugees. The number evacuated grew to almost four times that number. Aside from the shipping they required, the refugees had to be fed and kept warm while awaiting embarkation. Similarly, when the redeployment order was received 9 December, ships were still unloading supplies; some of the supplies were required to maintain the defensive perimeter, and the necessity for unloading them tied up some port facilities for several days. Doyle halted unloading when possible, but then his loading officer had to devise loading plans for ships that were not empty at the outset.

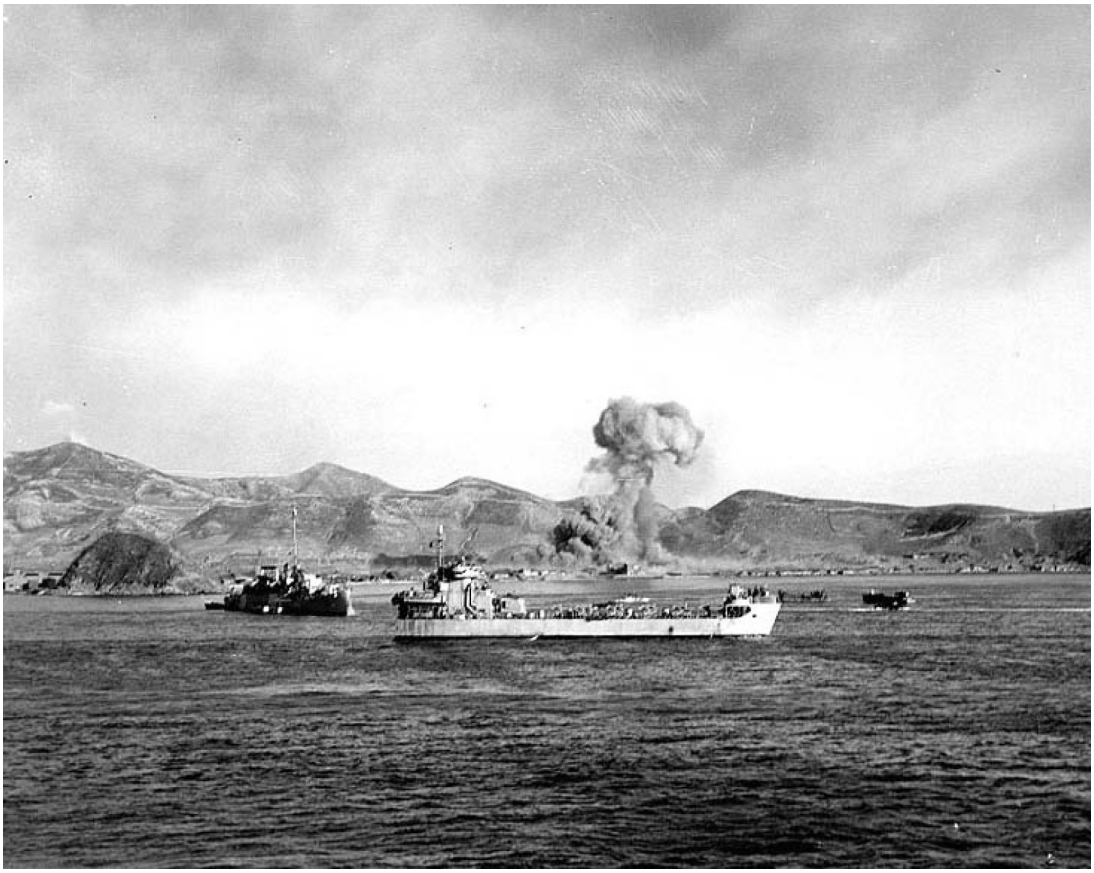
The 12th showed a marked acceleration of the loading operations. By the next day, 55 percent of the personnel, 40 percent of the vehicles, and 70 percent of the bulk cargo of the Marines had been loaded. Doyle finalized plans for lifting the ROK I Corps from Hungnam to Samchok, as requested by X Corps. The corps had estimated a requirement for twelve thousand personnel and "a few vehicles," and accordingly three ships had been committed. However, X Corps continued to revise the lift requirements upward—now twenty-five thousand personnel, seven hundred vehicles (including four hundred two-and-a-half-ton trucks), fifty tractors, and other heavy equipment. Consequently, additional shipping was allocated. Intelligence studies and aerial reconnaissance on 13 December led to the selection of Bokuko Ko as the landing site for the Korean units. Doyle formed TG 90.8 for that purpose on 16 December. It departed for Bokuko Ko on 17 December and commenced disembarking the following day. Meanwhile, by the 14th, 90 percent of the Marines' personnel, 95 percent of their vehicles, and 97 percent of

their bulk cargo had been loaded. The division sailed for Pusan the following day, and the 7th Division commenced loading.

Loading continued on the 17th, amid forty-knot winds, heavy seas, and freezing temperatures. Ships dragged anchor, and small boats drifted loose in and out of the harbor. Winds reached sixty knots in the open sea, and all carrier flight operations were suspended.[55] At 1600 (four o'clock in the afternoon) on 19 December, General Almond embarked on *Mount McKinley,* and command of all shore operations, including defense of the perimeter, passed to Doyle. The admiral pointedly told the general, so that there could be no mistake, "You understand . . . that these troops are now under my command."[56] It was precisely the reciprocal of the procedure by which during an amphibious assault command passes to the ground commander once he has established his command post ashore and so notified the amphibious commander. At the same time, 3rd Division took over the ground defenses.

By 20 December Doyle was confident enough of the operation's trajectory to set the 24th as the tentative "reverse" D-day—or "Dog Day," as it was then known. On the 20th, 7th Division completed loading and 3rd Division commenced loading. By the 22nd it emerged that sufficient shipping was available to outload another four thousand tons of ammunition and thirteen railroad boxcars (South Korea desperately needed rolling stock). Instructions for the Dog Day embarkation were completed and distributed. On the 23rd, additional refugees went on board U.S. ships, and *Missouri* reported to its assigned fire support station. Doyle informed the beachmaster of prospective movements and the beaching sequence of LSTs and LSUs on Dog Day. For the final withdrawal, Doyle maintained a naval gunfire barrage in a zone 2,500 yards wide about three thousand yards from the beaches and harbor. Call fires in addition to this barrage prevented enemy movement through the zone during the day. Doyle ordered the port director to commence undocking all ships at the quays at 2000 (8 PM) and increased harassing fire from naval gunfire support ships. When the last friendly troops were off the beaches, destructive fires rained down on the port area. Particular attention was given the destruction of the remaining railroad cars.[57] Hungnam port closed at 2300. The beaches remained to be cleared the next day.

Early on the day of Christmas Eve, Doyle confirmed H-hour as 1100 (11 AM). Simultaneously, aircraft napalmed a hundred to three hundred enemy troops who had begun to press on the perimeter. As shown on map 4, the perimeter was progressively and rapidly reduced until at 1100 initial combat elements, less the covering forces, commenced loading into the LSTs and LSUs. At 1217, Army personnel prematurely detonated two Pink Beach ammunition dumps, causing loss of personnel and boats. By 1405, friendly forces had cleared all beaches. Five



USS *LSMR-404* and USS *Begor* (APD-127) stand by as U.N. troops demolish the Hungnam port facilities at the end of the evacuation, on 24 December 1950.
U.S. Navy

minutes later, demolition charges were detonated around the waterfront of the inner harbor. At 1457, the hospital ship *Consolation* (AH 15) got under way, and the general sortie from the harbor commenced. *Mount McKinley* departed at 1632, and the operation concluded. Not a single friendly had been left behind.[58]

In the end, the Chinese and North Koreans elected not to attempt any serious interference with operations at Hungnam—in part, because the 1st Marine Division and Navy and Marine air had combined with Old Man Winter to render their forces substantially ineffective, and also, no doubt, because they understood that "their losses would certainly have been greater than they could have hoped to inflict. Fire power from the sea would have dwarfed what they had already absorbed during their attack on the Marines at Chosen."[59] More ammunition was ultimately expended at Hungnam than at the Inchon landing—but then, the operation lasted much longer, plenty of ammunition was available, and as Doyle later pointed out, powder and metal were much less valuable than human life.[60]

Koreans prepare to board an LST during the Hungnam evacuation, 19 December 1950. Other Koreans are transferring their belongings from an ox cart to a fishing boat, at left. Taken on Green Beach.

U.S. Navy

During fourteen days at Hungnam, the U.S. Navy embarked and redeployed 105,000 troops, 17,500 vehicles, and 350,000 measurement tons of supplies (including fuel and ammunition stores). It also lifted 91,000 civilian refugees to safety—a number limited only by time and available shipping. Marine and Air Force air transports flew out an additional 3,600 troops, 196 vehicles, and 1,300 tons of cargo. The number and types of ships employed reveal the operation's magnitude and complexity: one amphibious command ship (AGC), three attack transports, three attack cargo ships, eight MSTS-operated transports and one MSTS cargo ship, five heavy-lift time-charter vessels, fifty-one regular time-charter vessels (Victory ships), two SCAJAP time-charter vessels, eleven U.S. Navy LSTs, twenty-six SCAJAP LSTs, and three LSDs. Most vessels made multiple trips in and out of Hungnam; for example, thirty-seven LSTs made a total of eighty-one trips.

A DECENTRALIZED, SELF-ORGANIZING SYSTEM

Doyle later commented that the command relationships and operational procedures for Hungnam were unique to that special situation and probably ought not

to be used as a template for future amphibious operations. Insofar as the principal factors (and their interrelationships) of future operations were not largely identical to those that obtained at Hungnam, the admiral was absolutely correct.

At another level, however, the admiral was quite wrong and altogether too modest. The key to the remarkable military feat at Hungnam resided in Doyle's implicit recognition that, however experienced they were in amphibious operations, he and his staff had never before encountered a problem even remotely resembling that presented by Hungnam, nor did amphibious doctrine provide any foundation. That is, he and his staff correctly assessed that they faced an ill-structured problem—although they did not have that name for it.

Doyle's decision to devise an ad hoc plan and C2 organization predicated on the analogy of an amphibious operation executed in reverse therefore proved pivotal. That approach allowed experts to exercise their professional judgment freely in their areas of responsibility, to impose structure on the problems each confronted and generate solutions for them, and to communicate informally, directly, and quickly with others whose advice, cooperation, and coordination were necessary. Doyle essentially established and maintained a decentralized, self-organizing system that proved highly adaptive and flexible, well suited to the primary constraint on the operation—time. Experimentation and rapid learning, inevitably essential to the solution of ill-structured problems, were the rule, not conformity to preconceived notions of doctrine and to military formalities. Even the plan and organization themselves resulted from unusually consultative staff planning conferences that facilitated input from those with the requisite expertise. The profound lesson of Hungnam is to be found in the manner in which the operation was approached and organized.

UN control of adjacent sea and air enabled Doyle the complete freedom of action sought by every commander but rarely attained by any. The responsible naval commanders correctly understood that they could hold a perimeter at Hungnam as long as they wished to do so, given established and sustainable control of the sea and air, and the ready availability of naval air and gunfire support. This allowed United Nations forces to control the timing and completion of a well organized and well executed extraction. Conversely, the enemy was limited to ground action only, and that by an already attrited force without the heavy weapons to threaten seriously the redeploying forces.[61]

That historians and the popular imagination have heretofore focused on the Inchon landing is understandable (after all, it was an audacious assault, while Hungnam was a withdrawal) but unfortunate. Although the decision to land at Inchon was a difficult and daring one and succeeded operationally and tactically, it presented no particular novelties to Doyle and his amphibious experts. MacArthur's insistence on Inchon may have violated their professional sensibilities,

but they possessed both doctrine and experience by which to act effectively.[62] By contrast, Hungnam presented novelty at almost every turn, and yet the amphibious group rose to the occasion.

Doyle's ability to emplace a self-organizing system at Hungnam was predicated on the granting by Vice Admiral Joy of his demand that unlike in the Inchon and Wonsan operations, he be permitted to exercise command independently of the Seventh Fleet commander. Joy acceded because of his long-standing professional and personal relationship with Doyle and his practical understanding that amphibious expertise was *the* factor critical to success at Hungnam. Notwithstanding his own misgivings about Joy's decision, the CNO was unwilling or unable to overturn it directly, and his subterfuge of sending a "representative" to Hungnam had, in the event, no effect. For his part, Admiral Struble of Seventh Fleet, for whom Joy's decision must have been a bitter pill, responded fully to Doyle's requests for air and naval gunfire support and at the same time was able to focus on his broader Seventh Fleet responsibilities. Similarly, the presence of a second fully capable amphibious group in Korea under Doyle meant that Doyle could allocate responsibility for west-coast redeployment operations to that group, freeing himself from their detailed supervision and allowing him and his staff to focus on Hungnam.

Several other factors also contributed both to Doyle's willingness to employ a self-organizing system and to its success. His initial amphibious operational experience was as operations officer at Guadalcanal. Because such an operation had never before been attempted, it constituted an ill-structured problem, unlike later operations in the Central Pacific, which were much better structured.[63] Subsequently, Doyle served for two years in Admiral King's amphibious planning section. He thereby had firsthand experience with the practical matters of dealing with ill-structured problems and the need for an adaptable and self-organizing C2 organization.

Doyle's staff comprised entirely officers with extensive World War II amphibious experience, men who were virtually all overqualified for their billets. The same obtained for the officers and men of Forney's Mobile Training Team Able. Doyle's staff was no ordinary collection of skilled individual officers. Rather, it had seen little turnover and had worked together on landing exercises both stateside and in Japan prior to planning and conducting the Pohang Dong, Inchon, and Wonsan landings, along with myriad lesser amphibious lifts. In consequence, Doyle knew his staff members (and those of Team Able) personally and professionally in detail; the staff members knew each other in like manner, and they had evolved effective working relationships. Experience at Inchon and Wonsan had also established effective working relationships also with the principal ground commanders and their staffs. These factors all conduced to the development and

maintenance of trust among the key participants. These men could be depended on to do their jobs without central direction and to improvise when required. Underlying all of this was an effective communications system at Hungnam that permitted ready lateral coordination among the control posts.

In the end, the worst fears of the military commanders in Korea and of the American popular press were not realized in December 1950. Hungnam was no Dunkirk, nor from the Navy and the Marine Corps perspective had it at any time been likely to become one. Many factors contributed to success in Hungnam, including the availability of specialized amphibious shipping and complete control of air and sea, but the defining factors were the presence of experienced professionals, organized effectively, and the willingness of their commander to let them do their jobs.

After rest and recuperation at the "Bean Patch," near Ulsan, 1st Marine Division, still part of X Corps but the latter now integrated with Eighth Army, was ordered out of Army reserve on 9 January 1951 to reenter the fight. The Army's 3rd and 7th Divisions followed close behind.

In spring 1951, Rear Admiral Doyle returned to the United States for a well deserved rest and new duties. In September that year he became president of the Board of Inspection and Survey, serving until the following May, when he assumed the chairmanship of the Joint Amphibious Board. Doyle retired in November 1953, in the grade of vice admiral on the retired list, on the basis of his combat awards. He practiced law for many years in Austin, Texas, and died in 1982.

His work on the Joint Amphibious Board, rewriting existing doctrine for amphibious operations (then embodied in Naval Warfare Publication 22), proved, in the aftermath of the defense unification battles, highly contentious. The board completed its work at the end of Doyle's tenure, publishing its report in January 1954. The report set forth divergent service views on "doctrines and procedures governing joint amphibious operations" that were delaying finalization of a jointly acceptable solution—each page was divided into thirds, with the views of the Navy and Marine Corps, Army, and Air Force for each issue given separately. Curiously, given its chairman's immediate past experience at Hungnam, the report addressed only the problems of the *assault,* primarily matters of phasing and of command and control.[64]

Today, joint doctrine, although entirely consistent with the lessons of Hungnam, provides only minimal guidance for structuring the problem of the amphibious withdrawal. Naval commanders and staffs not already well practiced in the amphibious assault will find only a very rough outline for approaching the problem of the amphibious withdrawal. They are better advised to study Hungnam and its many relatives systematically, to consult the superseded Joint Publication 3-02.1,

Joint Doctrine for Landing Operations, of 2004, and regularly to plan and exercise the amphibious withdrawal. The requirement for such does not come along often, but when it does, fortune will favor the prepared.

NOTES

The author thanks Capt. James Cook, USN (Ret.), and his colleagues in the Joint Military Operations Department of the Naval War College for their thoughtful comments on earlier drafts.

1. The title refers to a 21 December 1950 message (date-time group 210836Z) from Vice Adm. C. Turner Joy, Commander, Naval Forces Far East, to the Chief of Naval Operations, Adm. Forrest Sherman, and Commander, Pacific Fleet, Adm. Arthur Radford, in reference to the Hungnam operation: "Doyle with Struble's excellent air cover and complete support is performing *remarkable military feat* in withdrawal plan [*sic*] army with all of their equipment and without heavy losses" [emphasis supplied]; U.S. Navy Operational Archives, Naval History and Heritage Command, Washington, D.C. [hereafter Navy Operational Archives]. The epigraphs are as quoted from the original sources in Michael Duffy, "Festering the Spanish Ulcer: The Royal Navy and the Peninsular War, 1808–1814," in *Naval Power and Expeditionary Warfare: Peripheral Campaigns and New Theaters of Naval Warfare,* ed. Bruce A. Elleman and S. C. M. Paine (London: Routledge, 2011), pp. 15–28. The epigraphs: from Molyneux's *Conjunct Expeditions: or, expeditions that have been carried on jointly by the fleet and army, with a commentary on a littoral war* (1759); an observation by Wellesley (later Lord Wellington) on his 1808–1809 Peninsular Campaign.

2. U.S. Defense Dept., *Amphibious Operations,* Joint Publication 3-02 (Washington, D.C.: Joint Staff, 10 August 2009) [hereafter JP 3-02], p. xi, available at Defense Technical Information Center, *Joint Electronic Library,* www.dtic.mil/doctrine/.

3. *The National Defense Program: Unification and Strategy: Hearings before the U.S. House of Representatives Committee on the Armed Services,* 81st Cong., 1st sess. (October 1949) (Washington, D.C.: U.S. Government Printing Office [hereafter GPO], 1949), p. 521. Strictly speaking, as has been pointed out, the general was correct: massive over-the-beach assaults against strong enemy defenses, such as those at Sicily and Normandy, have not been, and are not likely to be, practiced by the U.S. military—although one suspects that they just might be by other nations perhaps less chary of high casualty rates. The United States has found other ways to skin that cat, given developments in improved intelligence, vertical-lift capabilities, long-range precision fires, and the concept of ship-to-objective maneuver; see Keith F. Kopets, "Omar Bradley Was Right . . . ," *Marine Corps Gazette* (August 2003), available at www.mca-marines.org/. One need observe only casually the trend of investment by rising powers, such as India and China, in amphibious capabilities to grasp the continued importance of such operations in both peace and war.

4. Recognizing that an entire generation of Navy and Marine officers has, after the wars in Afghanistan and Iraq, virtually no practical experience of amphibious operations, U.S. Fleet Forces Command in 2011 conducted an amphibious training exercise, BOLD ALLIGATOR. Its follow-on, "BA12, tentatively scheduled for early in 2012, will be the largest amphibious exercise conducted by the Navy and Marine Corps in the last ten years. While planning is ongoing, it currently includes: An Amphibious Task Force (ESG-2) consisting of two Amphibious Ready Groups (ARGs—7–8 ships) and a Naval Beach Group (NBG); a Marine Expeditionary Brigade–sized Landing Force (2d MEB) consisting of a complete Marine Expeditionary Unit (MEU), a Regimental Landing Team (RLT), a Marine Air Group (MAG) and a Combat Logistics Regiment (CLR); a Carrier Strike Group (CSG—aircraft carrier, carrier air wing, 3–4 surface combatants); Military Sealift Command (MSC) ships; Mine Counter-Measures

(MCM) forces; Navy Expeditionary Combat Command (NECC) forces; Joint supporting forces; and Coalition amphibious, landing, and MCM forces." See "Bold Alligator 2012 Update," *U.S. Fleet Forces Command Blog* (9 June 2011), usfleetforces.blogspot.com/.

5. JP 3-02, p. xii.
6. See Duffy, "Festering the Spanish Ulcer."
7. The data presented in table 1 are drawn primarily from Milan N. Vego, *Naval Strategy and Operations in Narrow Seas* (London: Frank Cass, 1999), pp. 274–82.
8. Oliver P. Smith to Esther Smith, 14 December 1950, Oliver P. Smith Papers, U.S. Marine Corps Archives, Marine Corps Historical Center, Quantico, Va. [hereafter O. P. Smith Papers].
9. On 20–22 December, eight soldiers died and twelve became severely ill from ingesting methyl alcohol. On 24 December, an Army captain prematurely detonated an ammunition dump while boats and amphibian tractors were still on the beach, killing two men and injuring thirty-four; Commander, Amphibious Group One (CTF [Commander, Task Force] 90), "Report of Operations for Period 25 June 1950 to 1 January 1951," pp. 39–40, Navy Operational Archives; Oliver P. Smith, personal log, entry for 26 December 1950, p. 123, O. P. Smith Papers. The freighter *Senzan Maru,* carrying fifty thousand hundred-pound bags of flour, was mined outside Hungnam harbor on 10 December but was repaired and sailed to Japan. *Enid Victory* grounded at Hungnam but was refloated and sailed to Pusan. A ROK tank landing ship (LST) fouled its propellers in Manila line and wire. Loaded with more than seven thousand civilian refugees, this LST was extracted from the beach but remained in the harbor overnight while the propellers were cleared. A gale came up, during which an uncounted number of the refugees on board died of exposure; see Walter Karig, Malcolm Cagle, and Frank A. Manson, *Battle Report,* vol. 6, *The War in Korea* (New York: Rinehart, 1952), pp. 432–33.
10. Of the many published accounts of the Chosen withdrawal, see Edwin H. Simmons, *Frozen Chosin: The U.S. Marines at the Changjin Reservoir* (Washington, D.C.: U.S. Marine Corps Historical Center, 2002); Gail B. Shisler, *For Country and Corps: The Life of General Oliver P. Smith* (Annapolis, Md.: Naval Institute Press, 2009); and Lynn Montross and Nicholas A. Canzona, *U.S. Marine Operations in Korea, 1950–1953,* vol. 3, *The Chosin Reservoir Campaign* (Washington, D.C.: Historical Branch, G-3, Headquarters U.S. Marine Corps, 1956). The most complete, balanced account of naval operations during the Korean War is to be found in James A. Field, Jr., *History of United States Naval Operations, Korea* (Washington, D.C.: GPO, 1962). See also Malcolm W. Cagle and Frank A. Manson, *The Sea War in Korea* (Annapolis, Md.: Naval Institute Press, 1957). Both of the latter devote considerable attention to Hungnam.
11. The author is indebted to Col. Phillip Ridderhof, USMC, for providing the unpublished essay by Daniel F. Harrington, "Brigadier General Edward Hanna Forney, USMC: Lessons from the Hungnam Redeployment, December 1950—Implications for Operational Maneuver from the Sea"(student thesis, U.S. Army Command and General Staff College, Fort Leavenworth, Kans., 1997). Colonel Forney, who served as X Corps deputy chief of staff for Inchon and Wonsan but made his single greatest contribution at Hungnam, elected to write only about Inchon. For details of the Marine personnel running various sections of the embarkation control group, see Lynn Montross, "The Hungnam Evacuation: Amphibious Operation in Reverse," *Marine Corps Gazette* (December 1951), pp. 18–27. (Notably, the *Gazette* republished Montross's account online in 2010.) Rear Adm. James H. Doyle, who commanded at Hungnam, never published his version of the operation. However, the historian Arthur J. Mayer, on the basis of interviews he conducted with the admiral, composed and published a Hungnam account not long before Doyle died: James H. Doyle and Arthur J. Mayer, "December 1950 at Hungnam," U.S. Naval Institute *Proceedings* (April 1979), pp. 44–65.
12. Fleet Adm. Chester W. Nimitz famously said to a 1960 Naval War College class that "the war with Japan had been re-enacted in the game rooms here [Newport] by so many people and in so many different ways that nothing that happened during the war was a surprise—absolutely nothing except the kamikaze tactics towards the end of the war."

At a strategic level the admiral was largely correct; at the operational and tactical levels, however, the Navy had much to learn about the planning and execution of amphibious assaults.

13. Aside from oblique references passim, JP 3-02, the current doctrinal publication, devotes not quite two full pages to amphibious withdrawal. See JP 3-02, pp. III-70 to III-71.

14. Gen. Douglas MacArthur to Cdr. Malcolm W. Cagle, 19 March 1956, Vice Adm. Malcolm W. Cagle Papers, box 3, Navy Operational Archives [hereafter Cagle Papers].

15. The Soviets had based nearly eighty submarines at Vladivostok, and through five months of the war there were more than six dozen sightings of unidentified submarines in Korean and Japanese waters, of which about one-third were confirmed as Soviet boats; see "Pacific Fleet Interim Evaluation Report, Antisubmarine Operations, 25 June to 15 November 1950," Navy Operational Archives. However, the Soviets elected not to intervene directly, knowing that so doing would risk a wider war, of which they wanted no part. Nonetheless, the United States took the threat seriously, conducting aircraft carrier replenishments some distance from Korea's east coast and, during December 1950, secretly depth-charging what was believed to be a Soviet submarine but turned out to be an uncharted sunken World War II Japanese ship.

16. Field, *History of United States Naval Operations, Korea,* p. 259.

17. The subhead is Admiral Doyle's response during a pre-Inchon briefing to a comment by General MacArthur that if things went awry at Inchon, UN forces would withdraw. Vice Adm. James H. Doyle, USN (Ret.) (lecture, Naval War College, Newport, R.I., 14 March 1974) [hereafter Doyle lecture], p. 12, Naval Historical Collection, Naval War College, Newport, R.I.

18. Henry Mintzberg, Duru Raisinghani, and Andre Thoret, "The Structure of 'Unstructured' Decision Processes," *Administrative Science Quarterly* 21 (1976), p. 246.

19. The surface suicide-boat threat, in particular, necessitated simultaneous structuring of the problem and generation of solutions for it. Initial antiboat efforts were soon complemented by counterboat strikes. Even before the operation was concluded, Adm. R. K. Turner appointed a board to draft doctrine for such efforts. Plans based on that doctrine were included as an annex to Turner's plan for the invasion of Kyushu. See Donald Chisholm, "Industrial Scale Asymmetric Warfare: Japanese Surface Suicide Boats" (paper presented at the 2002 Annual Meeting of the Society for Military History, Univ. of Alberta, Calgary, Canada).

20. Roy E. Appleman et al., *Okinawa: The Last Battle* (1948; repr. Washington, D.C.: U.S. Army Center of Military History, 2000), app. C, available at www.history.army.mil/.

21. Much message traffic among senior Navy officers focused on what would happen on the ground, how Eighth Army, X Corps, and Far East Command would respond, and how the Navy might most effectively operate in light of those conditions. Joy initiated a series of "Flag Officers Dope" messages. See COMNAVFE [Commander, Naval Forces Far East], message date-time group 020642Z, to COM7THFLT [Commander, Seventh Fleet] (information addressees CNO [Chief of Naval Operations]/CINCPACFLT [Commander in Chief, Pacific Fleet], COMPHIBGRU [Commander, Amphibious Group] 1 and 3), 2 December 1950, Navy Operational Archives: "Army 8 has withdrawn to new line. 2nd Division and Turks badly cut up and are no longer effective. CAVDIV [1st Cavalry Division], 24 and 25 Divisions in better shape. Casualties all divisions very heavy. Army 8 right flank exposed. COMNAVFE estimates enemy may have capability of driving down central Korea to Seoul area without opposition and at the same time [send] out large elements to west to cut off straggling units. They may also launch heavy attack from about Yangdok [*sic*] to Wonsan within 2 days. There [is] now lull in Army 8 sector which may be caused by Chinese preparing for new attack or to reform since he has had heavy casualties. The danger of Chinese so engaging Army 8 [that they may] force it to fall back on Chinnampo is fully realized and will be avoided if at all possible. 10 [X] Corps trying effect accelerated withdrawal to 20 mile perimeter around Hungnam except 3rd Division who defends Wonsan at 1st probably later retiring Hungnam since only 1 port can be well defended."

22. See, for example, James D. Thompson and Arthur Tuden, "Strategies, Structures and Processes of Organizational Decision," in *Readings in Managerial Psychology,* ed. H. J. Leavitt and R. Pondy (Chicago: Univ. of Chicago Press, 1964); and W. Ross Ashby, "Principles of the Self-Organizing System," in *Principles of Self-Organization,* ed. Heinz von Foerster and George W. Zopf, Jr. (New York: Pergamon, 1962), pp. 255–78. More than five decades of empirical research into disaster response has consistently demonstrated that emergency responders, facing both surprise and the criticality of time, self-organize even as they address the disaster. In effect, the actual organization is known only after the response is complete.
23. See Donald Chisholm, "Ill-Structured Problems, Informal Mechanisms, and the Design of Public Organizations," in *Bureaucracy and Public Choice,* ed. Jan-Erik Lane (London: Sage, 1987), pp. 77–94.
24. "Because of the lack of essential knowledge of amphibious operations existing in the Tenth [X] Corps, and the lack of time for instruction and training of Army personnel, the only practical solution was to provide qualified personnel for temporary duty with the Tenth Corps. Fortunately such personnel were available to Mobile Team Able. Their services on Tenth Corps staff took on an added importance because the Marine Division was part of the Tenth Corps and the Navy furnished all close air and naval gunfire support." "Summary of Employment of Mobile Training Team ABLE, Troop Training Unit, Amphibious Training Command, Pacific Fleet for the Period 5 July 1950 to 2 January 1951," p. 3, Navy Operational Archives.
25. Doyle and Mayer, "December 1950 at Hungnam," p. 50.
26. Joy later noted that "Doyle complained to me that at Inchon Struble was continually in his hair and interfering with his exercise of command. As Doyle was more valuable to the success of Hungnam than Struble I thought it best to keep them separated as much as possible"; Vice Adm. C. Turner Joy, USN (Ret.), to Malcolm Cagle, 30 April 1956, Cagle Papers. Struble also had amphibious experience: he had served as chief of staff to Adm. Alan Kirk during the Normandy landings, subsequently commanding an amphibious group in 7th Amphibious Force (August 1944–August 1945). After the war, Struble was responsible for western Pacific mine clearance followed by a stint as Commander, Amphibious Force Pacific. He then became Deputy CNO (Operations), April 1948–May 1950, when he was sent to command Seventh Fleet. When the Korean War started, operational control of Seventh Fleet shifted, based on prior arrangements, from the Pacific Fleet commander, Adm. Arthur Radford, to Vice Adm. Joy as CINCNAVFE. Joy was several numbers junior to Struble (that is, below him on the official listing that establishes the relative seniority of officers within a given grade).
27. On the evolution of amphibious command relationships in Korea, see Donald Chisholm, "Negotiated Joint Command Relationships: Korean War Amphibious Operations, 1950" *Naval War College Review* 53, no. 2 (Spring 2000), pp. 65–124. See also Thomas B. Buell, *Naval Leadership in Korea: The First Six Months* (Washington, D.C.: Naval Historical Center, 2002).
28. Vice Adm. James H. Doyle, USN (Ret.), interview with Robert D. Heinl, 31 July–1 August 1966 [hereafter Doyle interview], Robert D. Heinl Papers, U.S. Marine Corps Archives, Marine Corps Historical Center, Quantico, Va.; Doyle lecture, p. 12.
29. Doyle and Mayer, "December 1950 at Hungnam," p. 49.
30. Shepherd's written account departs substantially from the narrative presented here. In his war diary he wrote that he was "informed by Admiral Radford that he had received a dispatch from Vice Admiral Joy stating the military situation was critical and requested that I be ordered to Tokyo for temporary duty with COMNAVFE." Shepherd arrived in Tokyo on 6 December 1950; there, as he recorded, "Admiral Joy gave reasons for asking me to come out. Thought one of the senior commanders might be relieved and if I were present, I might get the job." This was an apparent reference to Lt. Gen. Walton Walker. On 8 December, Shepherd wrote, "In view of MacArthur's orders to evacuate the X Corps from North Korea through the Port of Hungnam, Admiral Joy directed me to remain in Hungnam as his representative . . . on matters relating to the Marine Corps and for counsel and advice in connection with the

amphibious evacuation being planned. I requested Admiral Joy to confirm these orders in writing which he did"; "Korean War Diary," period 2 July to 7 December 1950, pp. 85–86, 92–93, Lemuel C. Shepherd, Jr., Papers, U.S. Marine Corps Archives, Marine Corps Historical Center, Quantico, Va. [hereafter Shepherd Papers]. In a 1956 letter to Lynn Montross, Shepherd commented, "Although it was not necessary for me to exercise my command functions, I had been orally directed to do so by both Admirals Radford and Joy if I considered it expedient. As I recall, I was directed to take charge of the naval phase of the evacuation of Hungnam as Representative of the Commander, Naval Forces, Far East. In compliance with these instructions I exercised close overall supervision of this phase of the operation and made suggestions to both Admiral Doyle and General Almond relative to the embarkation and evacuation of the Marine Forces from Hungnam"; quoted in Montross and Canzona, *Chosin Reservoir Campaign,* p. 337 note 7. Shepherd left Hungnam on 15 December. The following day, after conferring with Joy, he flew to Hawaii, where he reported to Admiral Radford that the evacuation of Hungnam was proceeding satisfactorily and should be successfully completed by 25 December. It seems doubtful that Shepherd "supervised" Doyle.

31. Joy instructed Struble on 2 December 1950, "Based on the overall situation at the time COM7THFLT will decide what fire support ships from the 7th Fleet can be furnished upon request by CTF 90 [Doyle]. . . . As soon as evacuation becomes necessary those ships in the evacuation area will be under the command of CTF 90. COM7THFLT has authority to withdraw ships he supplies when in his opinion this is necessary. COM7THFLT will of course furnish ships for fire support to the maximum extent possible consistent with the demands of the overall situation." Message date-time group 020030Z, Navy Operational Archives.

32. For a detailed account of the operation, see Field, *History of United States Naval Operations, Korea,* pp. 272–74.

33. Commander Amphibious Group Three–Commander Western Redeployment Group (CTG 90.1), "Inchon, Korea: Report of Operations, 4 December 1950 to 10 January 1951," p. 37, Navy Operational Archives.

34. Those discussions included the Army Chief of Staff, Gen. Lawton Collins; General MacArthur; the Commanding General, Far East Air Forces, Lt. Gen. George E. Stratemeyer; Vice Admiral Joy; Lieutenant General Shepherd; the Deputy CNO (Logistics), Vice Admiral Low; and others from the Far East Command staff. Walker did not wish to defend at Seoul–Inchon but rather to withdraw in successive stages to Pusan. MacArthur supported Walker in this and proposed "upon the assembly of the X Corps within a defended beachhead area, to evacuate it by water to Pusan or some place on the southeast coast of Korea, possibly in the vicinity of Samchok, where the X Corps would be landed and united with the 8th Army. At that time the X Corps as a unit would be dissolved and the 3rd and 7th Divisions placed in the 1st and 9th Corps and the 1st Marine Division in Army reserve, all under a unified command." Shepherd commented that the Army's general officers appeared defeated and demoralized. Lemuel C. Shepherd, "Top Secret Staff Conference GHQ, Thursday, 7 December 1950," Shepherd Papers.

35. Field, *History of United States Naval Operations, Korea,* p. 289.

36. Doyle and Mayer, "December 1950 at Hungnam," pp. 47–48.

37. Ibid., p. 48. There had been one previous, little-publicized, amphibious extraction: on 17 August the ROK 3rd Division, cut off and surrounded south of Yongdok, had been withdrawn in landing ships under supporting naval gunfire and redeployed without loss of personnel.

38. Field, *History of United States Naval Operations, Korea,* p. 249.

39. See Richard W. Stewart, *The X Corps in Korea: Staff Operations, December 1950* (Fort Leavenworth, Kans.: U.S. Army Combat Studies Institute, 1991), for a detailed examination of the X Corps end of things during the Hungnam redeployment.

40. "CTF 90 Action Report: Hungnam Redeployment, 9–24 December 1950–21 January 1951," p. 000, Navy Operational Archives.

41. SCAJAP under Vice Admiral Joy, operated U.S. shipping on long-term loan, including the much-needed LSTs. Japanese manned and commanded, these ships were used for Japanese domestic trade and for repatriating Japanese troops and civilians from mainland Asia and the Pacific islands. SCAJAP LSTs had already played vital, if publicly invisible, roles in all of the Korean War amphibious operations. MSTS was formed and placed under Navy control by the Defense Unification Act of 1947.
42. Doyle and Mayer, "December 1950 at Hungnam," pp. 51–52.
43. Field, *History of United States Naval Operations, Korea,* p. 291.
44. "These 390-ton diesel-electric tugs were excellent for the purpose. Fortunately neither broke down except for a period of about three hours each and were speedily repaired. . . . The Harbor Pilot, CAPT Merle R. Dawson, AUS [Army of the United States, i.e., retired], of the 2nd ESB [Engineer Special Brigade] (a professional pilot and Merchant Marine master in civil life) was a most accomplished dockmaster and pilot. His skill saved a great deal of time and further made possible operation of ships even during adverse weather conditions in a congested harbor. . . . Each of the tug crews of eleven were augmented by an additional eight men so that after a few days of training two crews were available on each tug. This was absolutely essential in order for the tugs to operate continuously." "CTF 90 Action Report," p. 14.
45. Doyle and Mayer, "December 1950 at Hungnam," p. 52.
46. "CTF 90 Action Report," p. 17. One thousand two hundred Japanese stevedores secured through the efforts of Rear Adm. Arleigh Burke and quartered on board *Shimano Maru,* also loaded cargo.
47. Ibid., p. 12 [emphasis added].
48. Doyle and Mayer, "December 1950 at Hungnam," p. 53. The subhead is from the Doyle lecture.
49. Doyle believed there was no need for *Missouri*'s additional firepower but acceded to Almond's request that it be employed.
50. Doyle and Mayer, "December 1950 at Hungnam," p. 53.
51. Ibid.
52. Field, *History of United States Naval Operations, Korea,* p. 288. The eight thousand cargo nets ordered and supplied to the amphibious group from Japan indicate the magnitude of the operation.
53. There was some back-and-forth over dusk-to-dawn combat air patrol. Struble recommended that night defense of Hungnam from air attack be based on antiaircraft (AA) fire rather than night combat air control. Doyle, however, stated that AA would not be used except in extreme emergency, because of air cargo operations and congestion in the harbor and embarkation area. He requested two night fighters on station. Struble directed CTF 77 to "comply in-so-far as practicable." "Commander in Chief U.S. Pacific Fleet, Interim Evaluation Report No. 1, Period 25 June to 15 November 1950, annex AA, 'Commander Amphibious Group ONE (CTF 90), Report of ComPhibGru One (CTF 90) Operations for Period 25 June 1950 to 1 January 1951,'" 17 January 1951, file A12/31-wt, ser. 002, p. AA-19, Navy Operational Archives.
54. Doyle and Mayer, "December 1950 at Hungnam," p. 51.
55. Four landing craft drifted out to sea. Two later had to be sunk by naval gunfire.
56. Doyle commented to Heinl that "it was necessary to hold Almond down." Doyle interview.
57. "CTF 90 Action Report," p. 27.
58. Doyle directed that "officers of at least commander rank function as beachmasters with orders to check personally that not a single U.N. soldier, sailor, or marine was left behind." Doyle and Mayer, "December 1950 at Hungnam," p. 55.
59. Cagle and Manson, *Sea War in Korea,* p. 188.
60. Naval gunfire support for TF 90 during 7–24 December 1950 totaled 162 rounds of sixteen-inch gunfire, 2,932 of eight-inch, 18,637 of five-inch, and 71 of three-inch, as well as 185 40 mm rounds and 1,462 rockets. Ibid.
61. By the time of Hungnam the Soviets had already begun delivering MiGs to the North Koreans in Manchuria, but they elected not to approach the perimeter closely.
62. See Donald Chisholm, "Amphibious Assault as Decisive Maneuver in Korea," in *Naval*

Power and Expeditionary Warfare, ed. Elleman and Paine, pp. 113–28.

63. See Donald Chisholm, "Right Man, Right Place, Right Time: Richmond Kelly Turner (1885–1961)," in *Nineteen-Gun Salute: Case Studies of Operational, Strategic, and Diplomatic Naval Leadership in the 20th and Early 21st Centuries,* ed. John B. Hattendorf and Bruce A. Elleman (Newport, R.I.: Naval War College Press / Washington, D.C.: U.S. Government Printing Office, 2010), pp. 35–50, for a discussion of the rapid evolution of practical thought about the problems of amphibious operations in the Pacific theater during World War II.

64. Joint Amphibious Board, *Doctrines and Procedures Governing Joint Amphibious Operations, with Divergent Service Views,* Report on Joint Amphibious Board Project No. 1-52 (Little Creek, Va.: 15 January 1954), available at U.S. Army Center of Military History Library, Carlisle, Pa.